RIS CRD

User Manual

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Version	Description	Who
v.01	Initial draft	cb
v.02	Finalising first version to publish	cb
v.03	Amendment of chap 10. URLs for service requests	Cb
v.04	Updates for CR17: alphanumeric company codes, railML PLC/SLC import, PLC validity columns, PLC start date display, new PLC instance creation, improved audit filters, historical data export per entity	cb, mo

Content

1 Introduction

CRD as part of RIS application is a publicly available application of central reference data according to TAF/TSI. However, it is necessary to have a user account to use the application. Core functionality of CRD is the management of primary and subsidiary location data by infrastructure managers, respectively. Furthermore, the application comprises country and company data according to TAF/TSI regulatory requirements which are provisioned to all participating parties in railway business.

This manual describes in detail the functionalities offered to this user group.

2 Login / Logout and Change Password

This topic provides information on how to Login and Logout of the application. It also mentions what to do if you forgot your password, and the method to change your password and your profile details.

2.1 Precursor

To be able to access the application via Web-User-Interface you must be set up as a user in RNE's active directory first.

To achieve please contact RNE using the following option

- Email: <xxxxxxxxxxxx>
- Tel: <xxxxxxxxxxxxxx>

2.2 Login

the application is opened under the following link:

- https://newcrd-stage.rne.eu/ for testing purposes and
- https://newcrd-prod.rne.eu/ for integration with your production system.

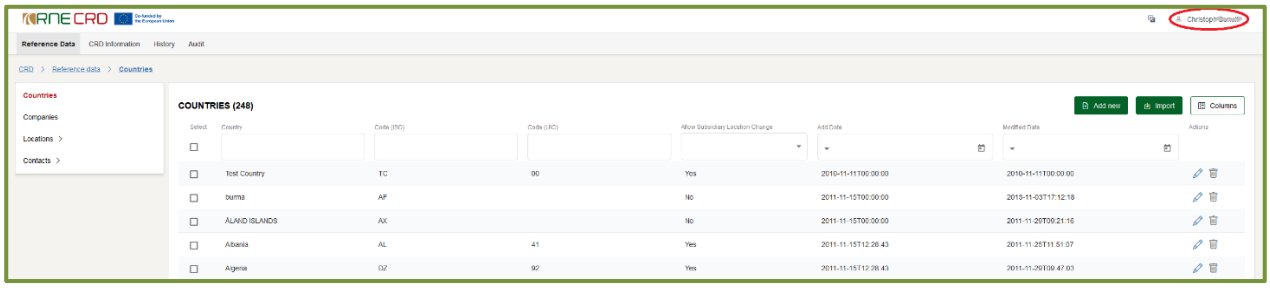
Normally, you are automatically logged in by means of your user you are logged in on your device. In case this user deviates from your user set up in RNE's active directory (AD) or you logged out from RIS system, you will be directed to the AD login screen

You can either use a proposed account or in case it is not listed chose other account.

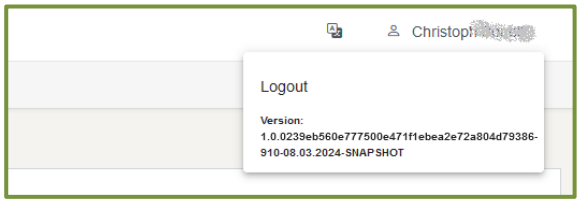
Then you must enter your account credentials

2.3 Logout

In RIS you will see always in the upper right corner your account under which you launched the application



Clicking on your user you get an option to logout.



Logout will redirect you to the RNE AD Login screen (see above)

Version of application:

Can be obtained by clicking on your user. This is sometimes helpful for communication in case of issues with the application.

2.4 Change Password

Can be chosen when you log in with your user account

You will receive an email with a link that will direct you to a web site to set a new password.

3 CRD Navigation logic

The functionality of the application is structured as:

- Reference Data
- CRD Information
- History
- Audit

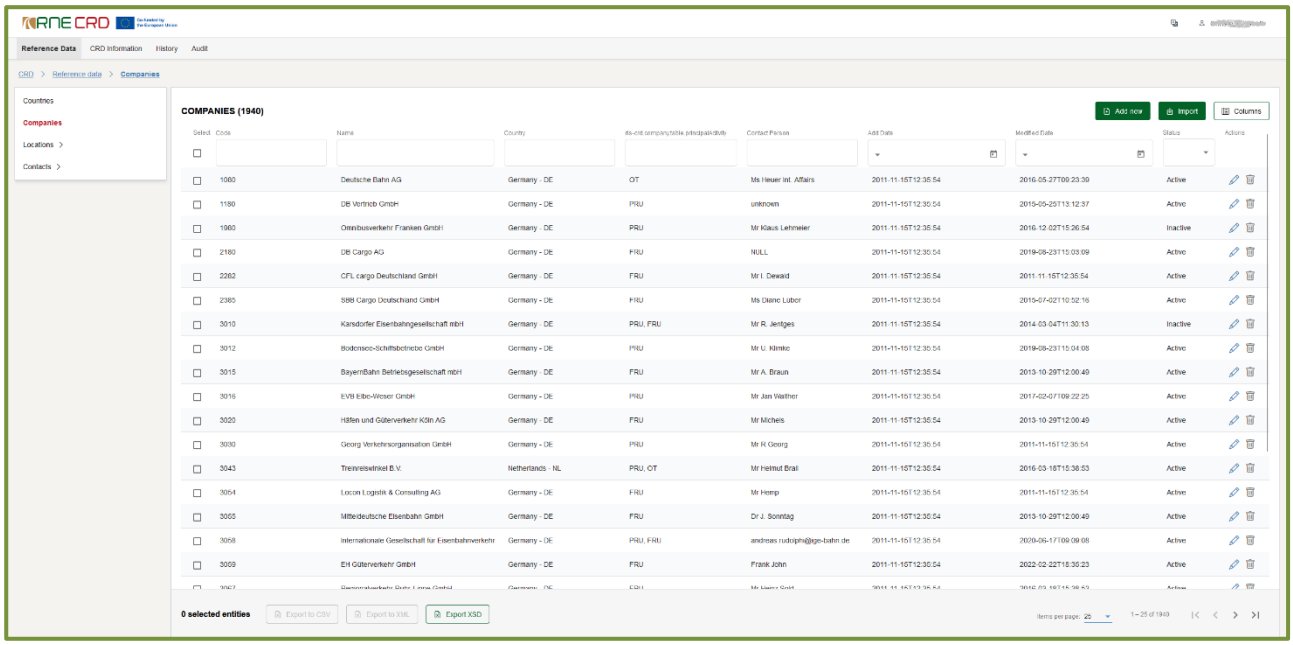
Depending on your privileges you have permissions to all or part of the above listed functions.

4 Reference data

4.1 Companies

4.1.1 Company overview

Users with the necessary permissions can access the overview of the companies via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Company Code Validation:

From January 2026, RIS also accepts alphanumeric values in the company code field. The length remains exactly 4 characters. Each of the four characters may be any of the 26 letters of the ISO 8859-1 alphabet (written in capitals) or any digit 0–9. This applies to the UI, the Export/Import template and the Replication SOAP Service

Actions

Add new a new company can be created.

Import companies may be imported (see below)

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected companies can be exported to a csv-file (see below)

selected companies can be exported to a XML-file (see below)

the XSD definition for company XML file can be exported (see below)


Edit: Opens the detail dialogue by means of which data can be edited


Delete: Let the user delete this entity. The deletion can only be performed if the country is not used by other objects (e.g. companies, locations, etc.)

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in 2 different data structures: csv and xml.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export buttons are activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Export selected rows to csv: a comma separated csv is generated with the following structure:

```
Company_UIC_Code,Company_Short_Name,Company_Name,Company_Name_ASCII,Company_URL,Country_ISO_code,Start_Validity,End_Validity,Free_Text,Contact_Person,Email,Phone_Number,Mobile_Number,FAX_Number,Address,City,Postal_Code,Passenger_Flag,Freight_Flag,Infrastructure_Flag,Other_Company_flag,NA_Entity_Flag,CA_Entity_Flag,Active_Flag,Add_Date,Mod_Date
```

Export selected rows to xml: a xml is generated with the following structure:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Companies xmlns="http://ws.refdata.crd.cc.uic.org/replication/schemas">
  <Company>
    <Company_Name>Lineas</Company_Name>
    <Company_UIC_Code>2188</Company_UIC_Code>
    <Company_URL>http://www.lineas.be</Company_URL>
    <Country_ISO_Code>BE</Country_ISO_Code>
    <Start_Validity>2010-08-17</Start_Validity>
    <Company_Short_Name>LNS</Company_Short_Name>
    <Free_Text xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true"/>
    <Contact_Details>
      <Contact_Person>Mr Frederic.Buyse</Contact_Person>
      <Email>Frederic.Buyse@lineas.net@lineas.net</Email>
      <Phone_Number>+3224329416</Phone_Number>
      <Address>Koning Albert II-laan 37</Address>
      <City>Brussels</City>
      <Postal_Code>1030</Postal_Code>
    </Contact_Details>
    <Passenger_RU_Flag>false</Passenger_RU_Flag>
    <Freight_RU_Flag>true</Freight_RU_Flag>
    <Infrastructure_Flag>false</Infrastructure_Flag>
    <Other_Company_flag>false</Other_Company_flag>
    <National_Entity_Flag>false</National_Entity_Flag>
    <Central_Entity_Flag>false</Central_Entity_Flag>
    <Active_Flag>true</Active_Flag>
    <Add_Date>2011-11-15</Add_Date>
    <Modified_Date>2019-02-21</Modified_Date>
  </Company>
</Companies>
```

Created files are downloaded to the local drive.

Export XSD definition:

See attachement of manual

Import

Import can be done by means of csv files using the following structure:

Company_UIC_Code,Company_Short_Name,Company_Name,Company_Name_ASCII,Company_URL,Country_ISO_code,Start_Validity,End_Validity,Free_Text,Contact_Person,Email,Phone_Number,Mobile_Number,FAX_Number,Address,City,Postal_Code,Passenger_Flag,Freight_Flag,Infrastructure_Flag,Other_Company_flag,NA_Entity_Flag,CA_Entity_Flag,**action_flag**

Action flag controls the type of import:

1....create new company

2....update existing company

3....udpate end date of existing company to import date

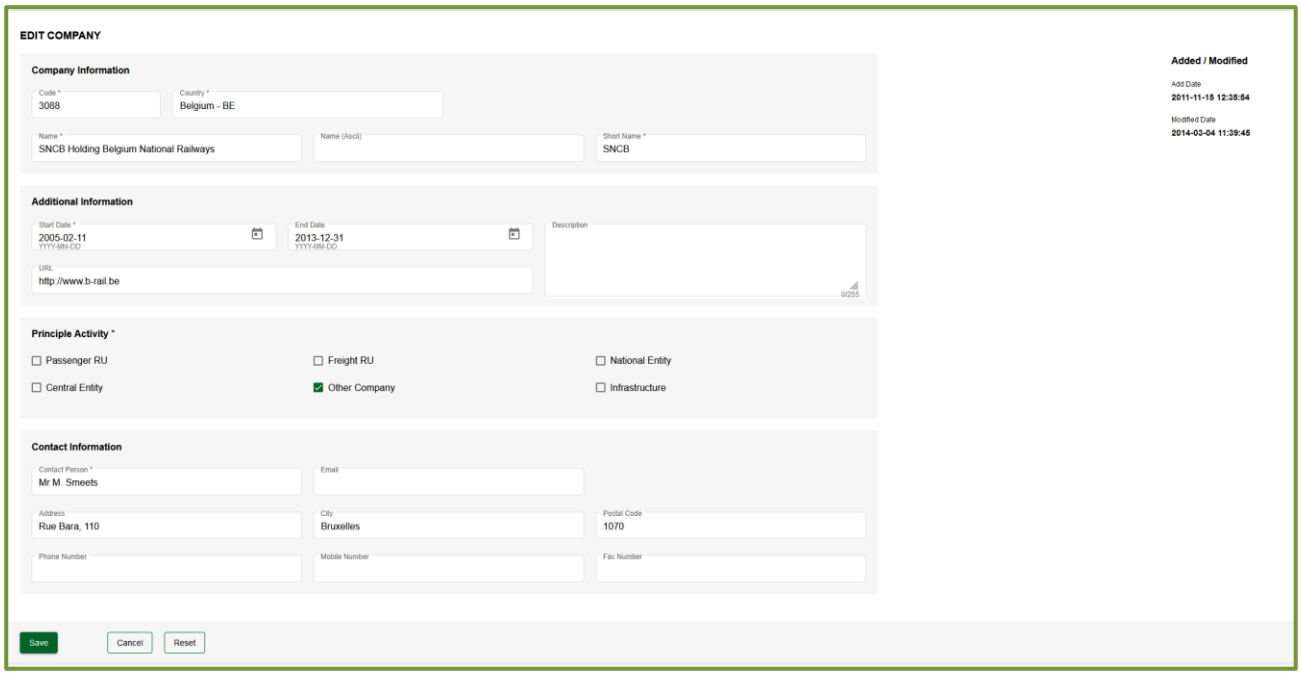
Validation rules alphanumeric company codes apply to import as well as to UI entry. The Company_UIC_Code field now accepts 4-character alphanumeric values (A–Z, 0–9, capitals only).

In the case of errors (syntactical or semantical) the user gets a response explaining the issue and in case it is related to specific countries -> the row where the issue was found. Be aware that the entire import file is not imported if an error is found.

4.1.2 Company details

You can open the detailed data of the company via the edit icon in the overview.

Depending on the privilege, the user can change the detailed data of the company.

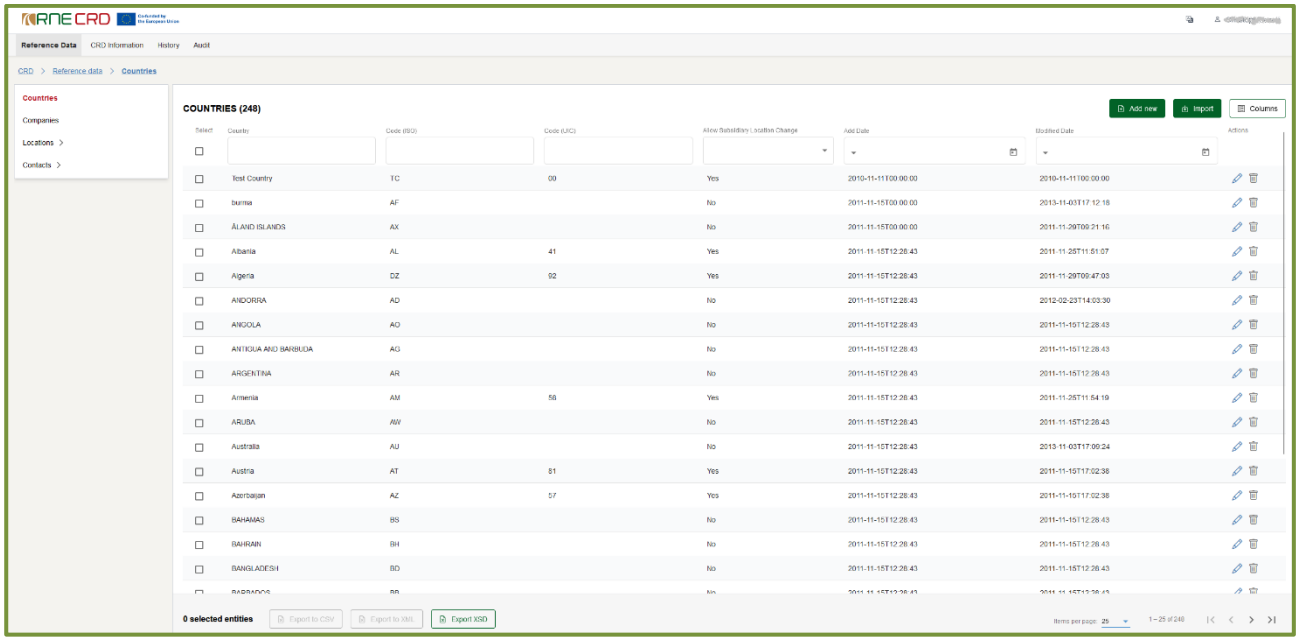


Note: The Company Code field now accepts alphanumeric values (A–Z, 0–9, exactly 4 characters, capitals). The previous restriction to numeric-only values has been removed in line with TAF/TAP TSI updates effective January 2026.

4.2 Countries

4.2.1 Country overview

Users with the necessary permissions can access the overview of the countries via the following sub-menu item.



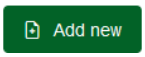
Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

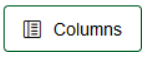
Paging size can be changed in the lower right corner.

Actions



a new country can be created.

countries may be imported (see below)



a column selector is opened by means of which the shown columns can be changed.

selected countries can be exported to a csv-file (see below)

selected countries can be exported to a XML-file (see below)

the XSD definition for countries XML file can be exported (see below)


Edit: Opens the detail dialogue by means of which data can be edited


Delete: Let the user delete this entity. The deletion can only be performed if the company is not used by other objects (e.g. primary or subsidiary locations, etc.)

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in 2 different data structures: csv and xml.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export buttons are activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Export selected rows to csv: a comma separated csv is generated with the following structure:

```
Country_ISO_code,Country_UIC_Ident,Country_Name_EN,Country_Name_FR,Country_Name_DE,Sub_Loc_Code_Flag,Add_Date,Mod_Date
```

Export selected rows to xml: a xml is generated with the following structure:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Countries xmlns="http://ws.refdata.crd.cc.uic.org/replication/schemas">
  <Country>
    <Country_Iso_Code>EH</Country_Iso_Code>
    <Country_Name_EN>WESTERN SAHARA (formerly Spanish Sahara)</Country_Name_EN>
    <Sub_Loc_Code_Flag>false</Sub_Loc_Code_Flag>
    <Add_Date>2011-11-15</Add_Date>
    <Modified_Date>2011-11-15</Modified_Date>
  </Country>
</Countries>
```

Created files are downloaded to the local drive.

Export XSD definition:

See attachement of manual

Import

Import can be done by means of csv files using the following structure:

```
Country_ISO_code,Country_UIC_Ident,Country_Name_EN,Country_Name_FR,Country_Name_DE,Sub_Loc_Code_Flag,action_flag
```

Action flag controls the type of import:

1....create new country

2....update existing country

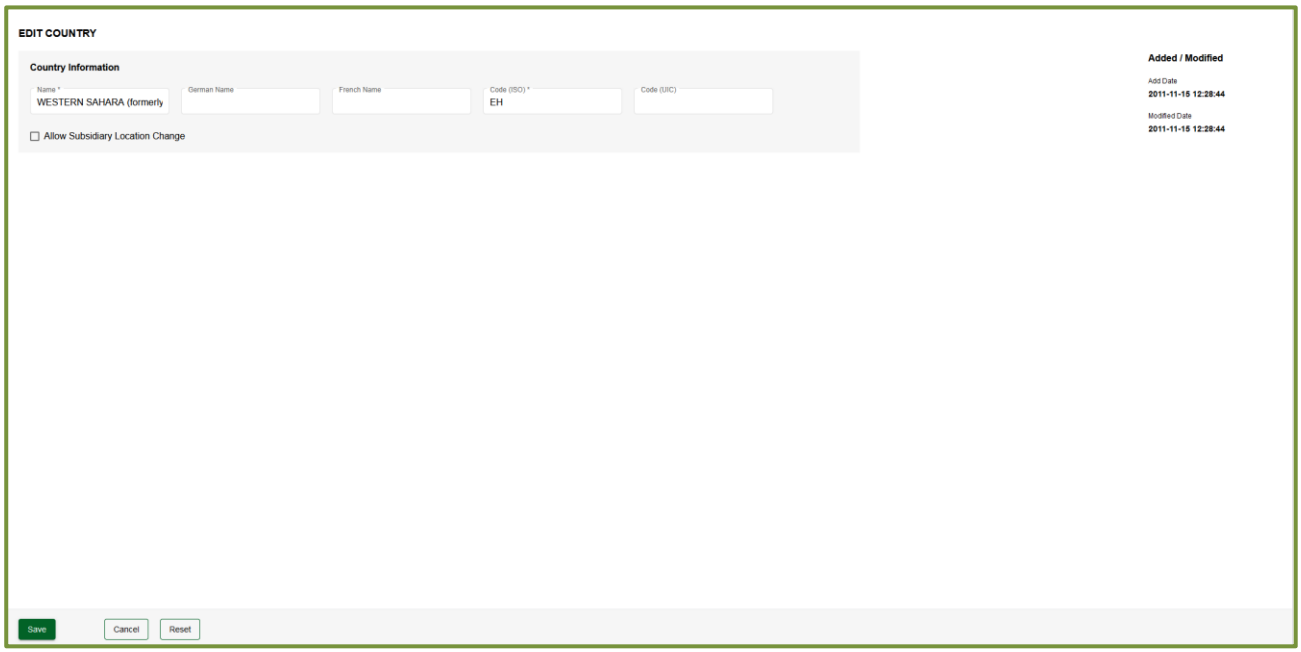
3....delete existing country

In the case of errors (syntactical or semantical) the user gets a response explaining the issue and in case it is related to specific countries -> the row where the issue was found. Be aware that the entire import file is not imported if an error is found.

4.2.2 Country details

You can open the detailed data of the company via the edit icon in the overview.

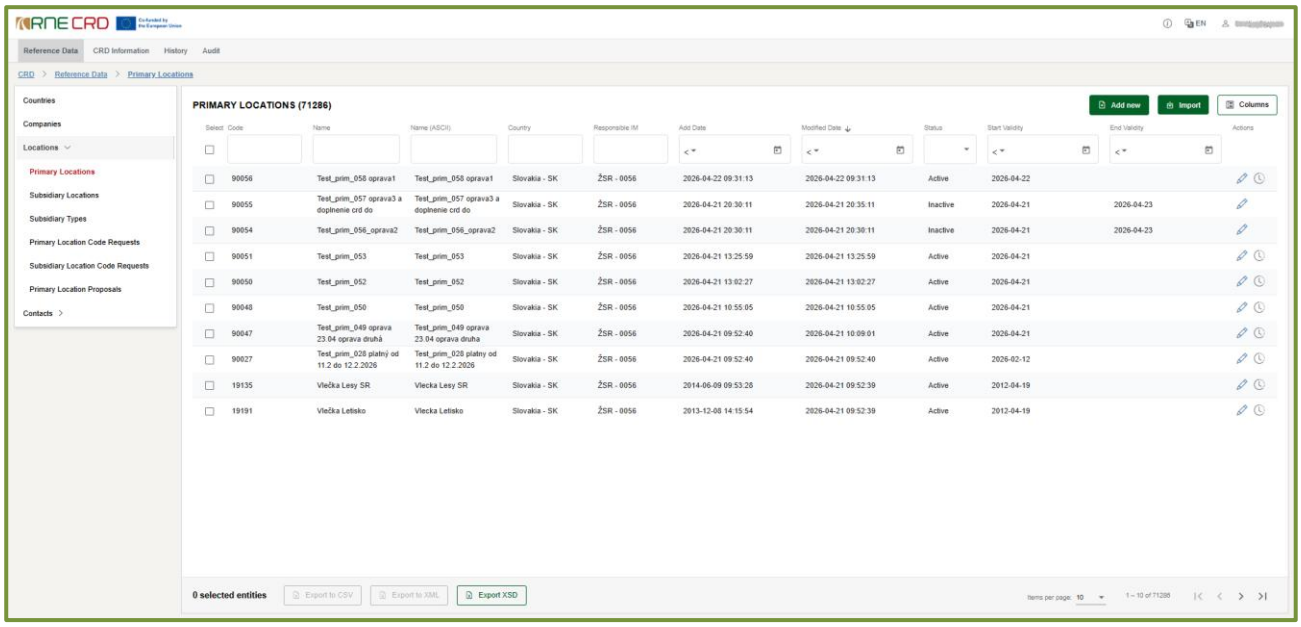
Depending on the privilege, the user can change the detailed data of the company.



4.3 Primary Locations

4.3.1 Primary Locations Overview

Users with the necessary permissions can access the overview of the subsidiary locations via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Add new a new primary location can be created.

Import primary locations may be imported (see below)

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected primary locations can be exported to a csv-file (see below)

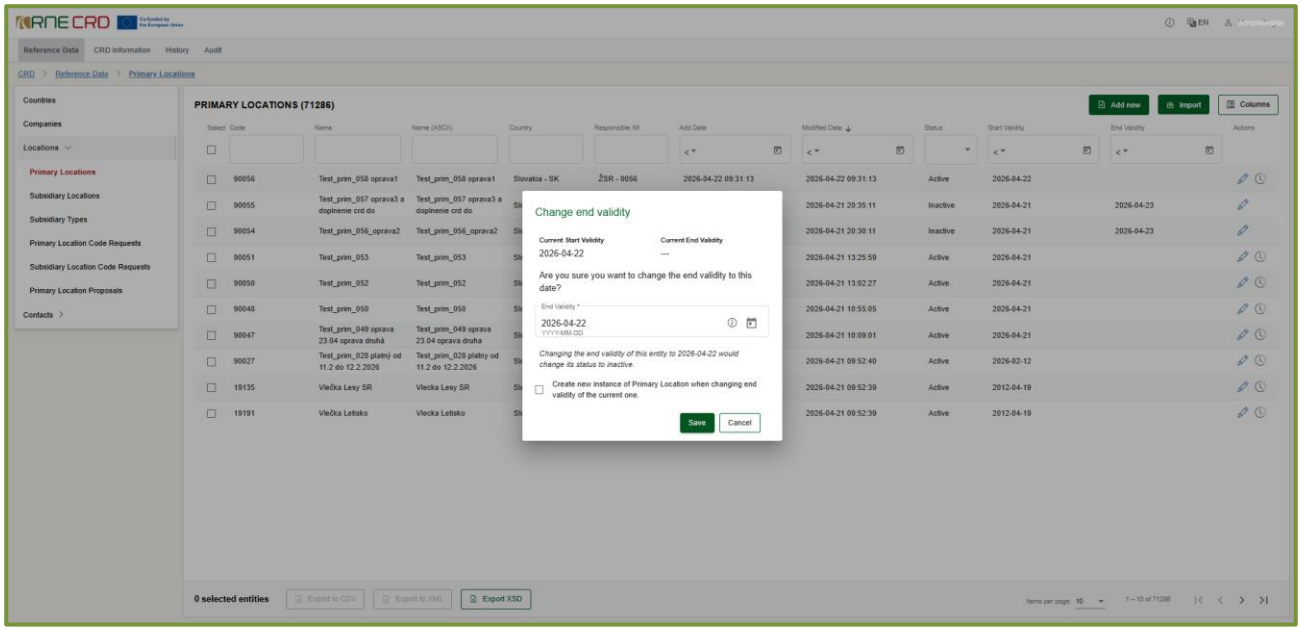
Export to XML selected primary locations can be exported to a XML-file (see below)

Export XSD the XSD definition for primary locations XML file can be exported (see below)

Edit: Opens the detail dialogue by means of which data can be edited

 Set inactive: An active location can be set inactive by means of setting the end-date of the location to yesterday. Triggering this function opens a dialogue, where the user gets an end date proposed (default=yesterday). The user is allowed to change the end date and set it individually. The possibility to set an end date, however, is dependent on the topology managed in the application. To keep data consistencies, it might be necessary to first set end dates on other objects first. In such cases the application shows a meaningful message to the user and what to do.

Create New Instance: When the 'Change End Validity' dialog is opened, a new checkbox is available:



'Create new instance of Primary Location'. If checked, upon saving the system will automatically:

1. Set the end validity date of the current (old) Primary Location as specified.
2. Create a new Primary Location with the same properties, a start validity date of equal to (end validity date of old primary location + 1 day), and an empty end validity date or equal to (start validity date of primary location, what is next in the timeline, minus 1 day).
3. Copy all associated Subsidiary Locations, Segments and Tracks to the new Primary Location.
4. Invalidate old SLCs Subsidiary Locations, S/Segments/Tracks and set validity periods based on the new Pegments and Tracks and set validity periods based on the new LCPrimary Location.
5. Replace the old segments with the new ones in all Section definitions.

After saving, the user is navigated directly to the detail view of the new Primary Location instance.

Columns

This functionality can be used to hide or add columns in the table overview shown. Two new columns have been added: Start Date and End Date (validity period of the Primary Location). Both columns support filtering and sorting.

Export

Export can be performed in 2 different data structures: csv and xml.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export buttons are activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Export selected rows to csv: a comma separated csv is generated with the following structure:

```
Country_ISO_code,Primary_Location_Code,Start_Validity,End_Validity,Responsible_IM_Code,Location_Name,
Location_Name_ASCII,NUTS_Code,Container_Handling_Flag,Handover_Point_Flag,Freight_Possible_Flag,Freig
ht_Start_Validity,Freight_End_Validity,Passenger_Possible_Flag,Passenger_Start_Validity,Passenger_End_Validi
ty,Latitude,Longitude,Free_Text,Active_Flag,Add_Date,Mod_Date
```

Export selected rows to xml: a xml is generated with the following structure:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<PrimaryLocations xmlns="http://ws.refdata.crd.cc.uic.org/replication/schemas">
  <Primary_Location>
    <Country_Iso_Code>CZ</Country_Iso_Code>
    <Location_Code>55023</Location_Code>
    <Start_Validity>2017-07-01</Start_Validity>
    <ResponsibleIM>0054</ResponsibleIM>
    <Location_Name>Předhradí z</Location_Name>
    <Location_Name_ASCII>PREDHRADI Z</Location_Name_ASCII>
    <NUTS_Code>530</NUTS_Code>
    <Container_Handling_Flag>false</Container_Handling_Flag>
    <Handover_Point_Flag>false</Handover_Point_Flag>
    <Freight_Possible_Flag>false</Freight_Possible_Flag>
    <Passenger_Possible_Flag>true</Passenger_Possible_Flag>
    <Passenger_Start_Validity>2022-01-01</Passenger_Start_Validity>
    <Latitude>49.824194</Latitude>
    <Longitude>16.018621</Longitude>
    <Active_Flag>true</Active_Flag>
    <Add_Date>2017-07-10</Add_Date>
    <Modified_Date>2021-12-07</Modified_Date>
  </Primary_Location>
</PrimaryLocations>
```

Created files are downloaded to the local drive.

Export XSD definition:

See attachement of manual

Import

Import can be done by means of csv files using the following structure:

```
Country_ISO_code,Primary_Location_Code,Start_Validity,End_Validity,Responsible_IM_Code,Location_Name,
Location_Name_ASCII,NUTS_Code,Container_Handling_Flag,Handover_Point_Flag,Freight_Possible_Flag,Freig
ht_Start_Validity,Freight_End_Validity,Passenger_Possible_Flag,Passenger_Start_Validity,Passenger_End_Validi
ty,Latitude,Longitude,Free_Text, action_flag
```

Action flag controls the type of import:

1....create new primary location

2....update existing primary location

3....udpate end date of existing primary location to import date

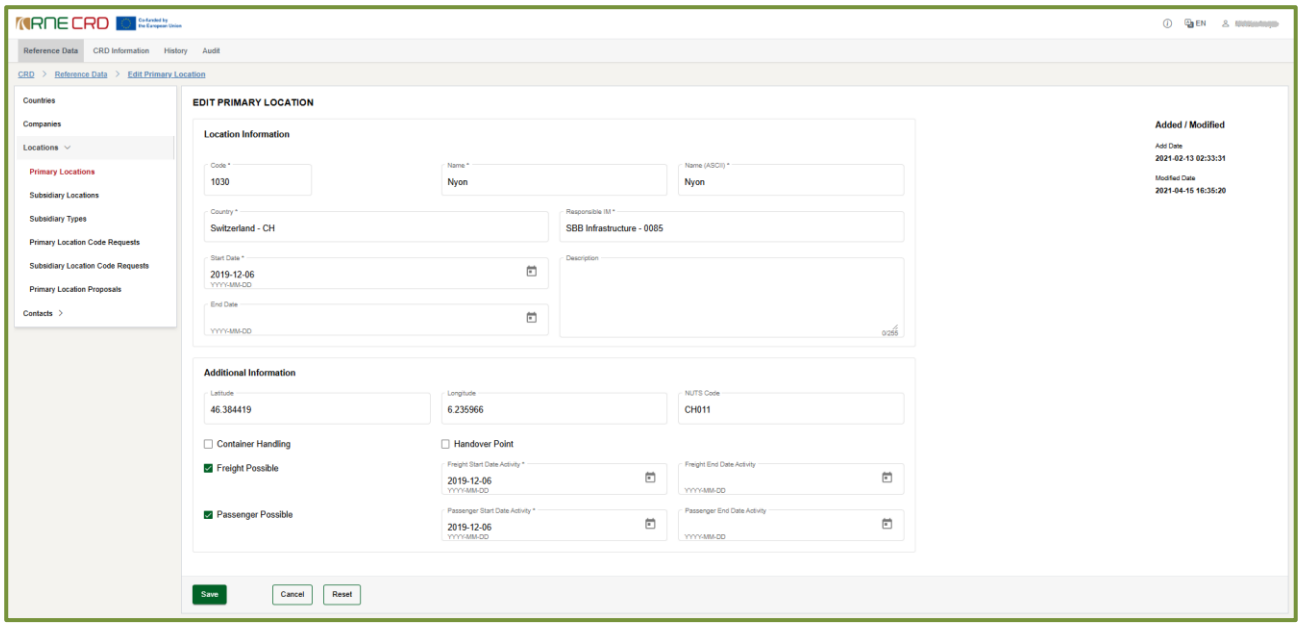
4....update end date to import date and create new instance of Primary Location (as described above)

In the case of errors (syntactical or semantical) the user gets a response explaining the issue and in case it is related to specific primary locations -> the row where the issue was found. Be aware that the entire import file is not imported if an error is found.

4.3.2 Primary Location details

You can open the detailed data of the company via the edit icon in the overview.

Depending on the privilege, the user can change the detailed data of the company.

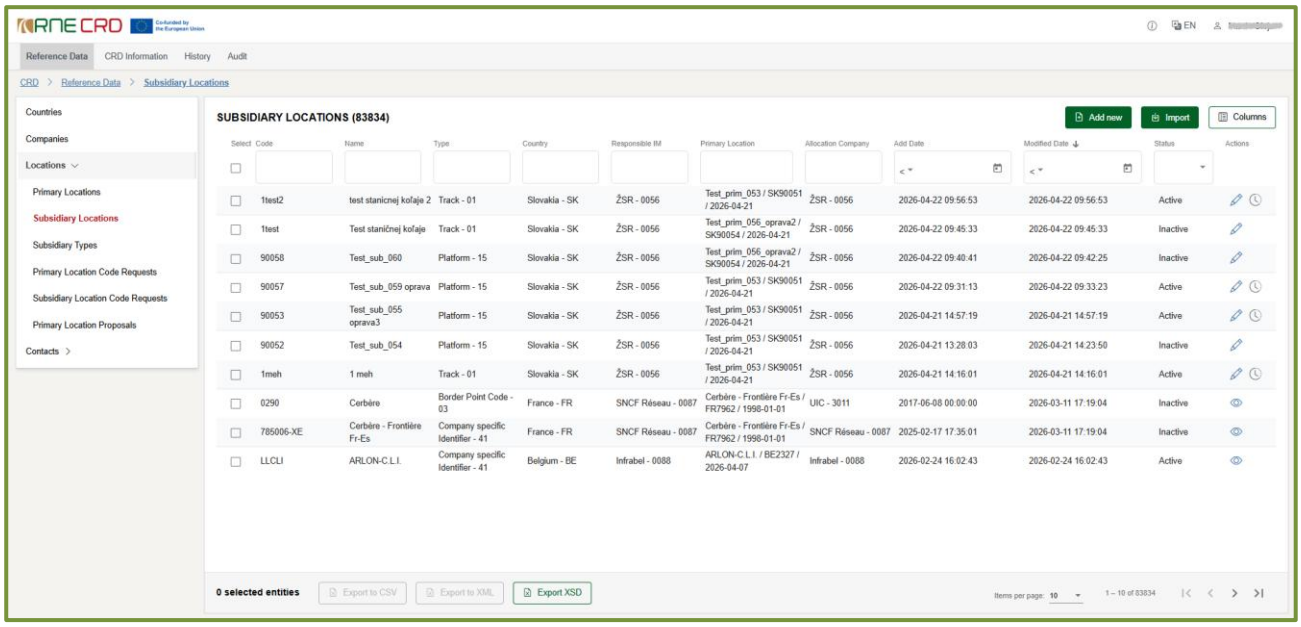


Display of Start Date: Wherever the name and code of a Primary Location are displayed together, the start date is now also shown. The format is: NAME / PLC / START DATE (e.g. MADRID ABROÑIGAL / ES95104 / 2013-11-23). This applies in the properties panel of the Interactive Map, search results, Edit Section tool, Split Section tool, and all grid/lookup fields referencing a Primary Location

4.4 Subsidiary Location

4.4.1 Subsidiary Locations Overview

Users with the necessary permissions can access the overview of the subsidiary locations via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Add new a new subsidiary location can be created.

Import subsidiary locations may be imported (see below)

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected subsidiary locations can be exported to a csv-file (see below)

Export to XML selected subsidiary locations can be exported to a XML-file (see below)

Export XSD the XSD definition for subsidiary locations XML file can be exported (see below)

Edit: Opens the detail dialogue by means of which data can be edited

 Set inactive: An active location can be set inactive by means of setting the end-date of the location to yesterday. Triggering this function opens a dialogue, where the user gets an end date proposed (default=yesterday). The user is allowed to change the end date and set it individually. The possibility to set an end date, however, is dependent on the topology managed in the application. To keep data consistencies, it might be necessary to first set end dates on other objects first. In such cases the application shows a meaningful message to the user and what to do.

Columns

This functionality can be used to hide or add columns in the table overview shown.

The grid contains also a column Primary Location. This column now shows the name, code and start date of the Primary Location

Export

Export can be performed in 2 different data structures: csv and xml.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export buttons are activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Export selected rows to csv: a comma separated csv is generated with the following structure:

```
Primary_Location_Code,Primary_Location Country_ISO_code,Primary_Location_Start_Validity,
Subsidiary_Type_Code,Subsidiary_Location_Code,Subsidiary_Location_Name,Start_Validity,End_Validity,Alloc
ation_Company_Code,Latitude,Longitude,Free_Text,Active_Flag,Add_Date,Mod_Date
```

Export selected rows to xml: a xml is generated with the following structure:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SubsidiaryLocations xmlns="http://ws.refdata.crd.cc.uic.org/replication/schemas">
  <Subsidiary_Location>
    <Country_Iso_Code>SK</Country_Iso_Code>
    <Responsible_IM_Code>0056</Responsible_IM_Code>
    <Subsidiary_Location_Code>24063</Subsidiary_Location_Code>
    <Location_Code>17695</Location_Code>
    <Subsidiary_Type_Code>70</Subsidiary_Type_Code>
    <Subsidiary_Location_Name>HS_Tepláreň Považská Bystrica,
s.r.o.</Subsidiary_Location_Name>
    <Start_Validity>2012-04-19</Start_Validity>
    <AllocationCompany>0056</AllocationCompany>
    <Latitude xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true"/>
    <Longitude xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true"/>
    <Free_Text>Network Border</Free_Text>
    <Active_Flag>true</Active_Flag>
    <Add_Date>2022-08-11</Add_Date>
    <Modified_Date>2022-08-11</Modified_Date>
  </Subsidiary_Location>
</SubsidiaryLocations>
```

Created files are downloaded to the local drive.

Export XSD definition:

See attachement of manual

Import

Import can be done by means of csv files using the following structure:

```
Primary_Location_Code,Primary_Location Country_ISO_code,Primary_Location_Start_Validity,
Subsidiary_Type_Code,Subsidiary_Location_Code,Subsidiary_Location_Name,Start_Validity,End_Validity,Alloc
ation_Company_Code,Latitude,Longitude,Free_Text,action_flag
```

Action flag controls the type of import:

1....create new subsidiary location

2....update existing subsidiary location

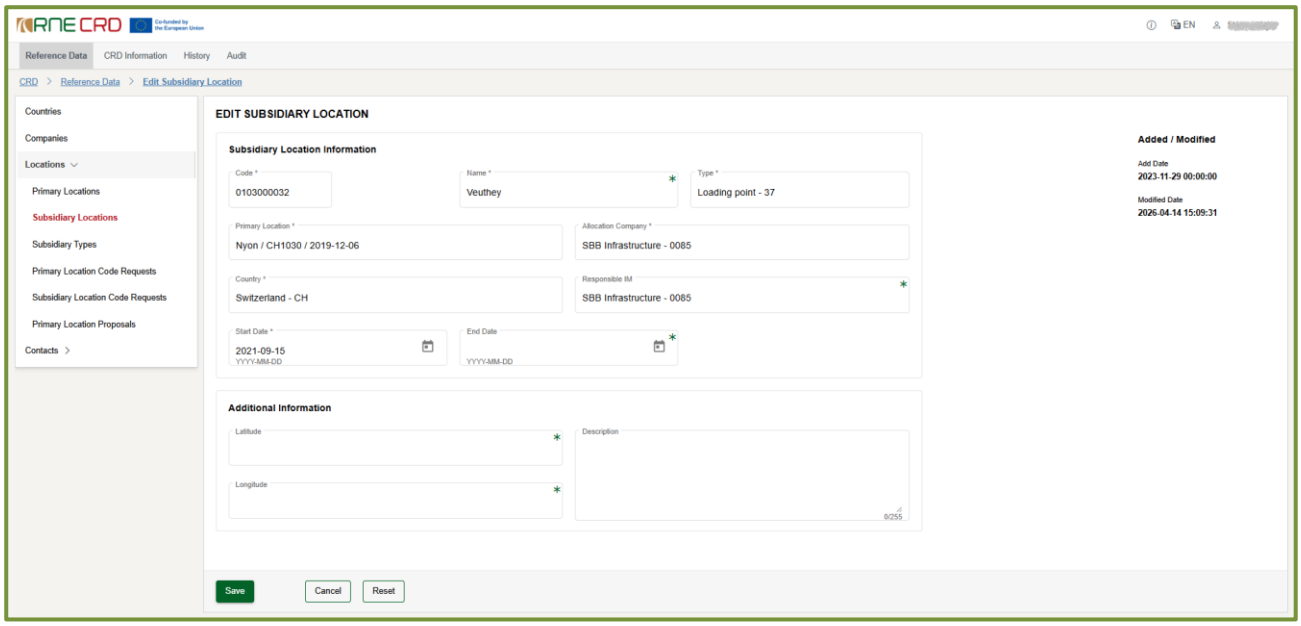
3....udpate end date of existing subsidiary location to import date

In the case of errors (syntactical or semantical) the user gets a response explaining the issue and in case it is related to specific subsidiary locations -> the row where the issue was found. Be aware that the entire import file is not imported if an error is found.

4.4.2 Subsidiary Location details

You can open the detailed data of the company via the edit icon in the overview. Primary Location as name, PLC code and start date is shown as well.

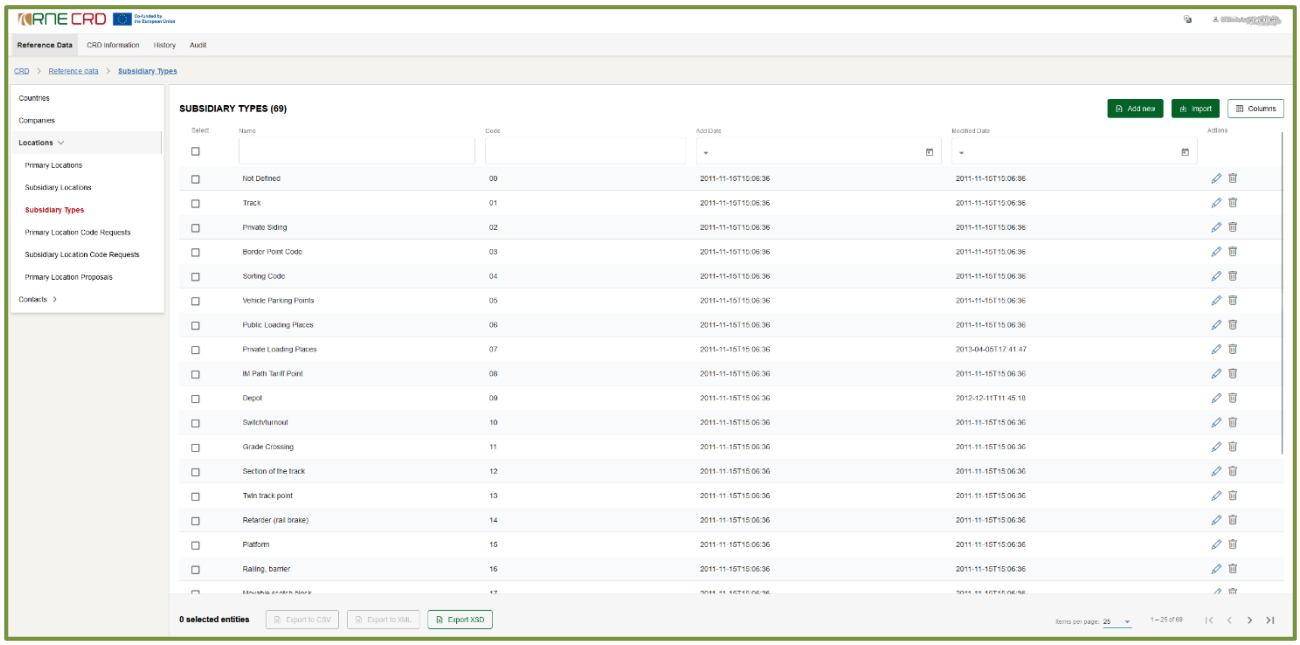
Depending on the privilege, the user can change the detailed data of the company.



4.5 Subsidiary Types

4.5.1 Subsidiary Types Overview

Users with the necessary permissions can access the overview of the subsidiary types via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Add new a new subsidiary types can be created.

Import subsidiary types may be imported (see below)

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected subsidiary types can be exported to a csv-file (see below)

Export to XML selected subsidiary types can be exported to a XML-file (see below)

Export XSD the XSD definition for subsidiary types XML file can be exported (see below)

Edit: Opens the detail dialogue by means of which data can be edited

Delete: Let the user delete this entity. The deletion can only be performed if the type is not used already.

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in 2 different data structures: csv and xml.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export buttons are activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Export selected rows to csv: a comma separated csv is generated with the following structure:

```
Subsidiary_Type_Code,Subsidiary_Type_Name,IM_Flag,Freight_RU_Flag,Passenger_RU_Flag,Central_Entity_Flag,National_Entity_Flag,Others_Flag,Free_Text,Add_Date,Mod_Date
```

Export selected rows to xml: a xml is generated with the following structure:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<SubsidiaryTypes xmlns="http://ws.refdata.crd.cc.uic.org/replication/schemas">
  <SubsidiaryType>
    <Subsidiary_Type_Code>49</Subsidiary_Type_Code>
    <Subsidiary_Type_Name>Compressed plant</Subsidiary_Type_Name>
    <Infrastructure_Flag>true</Infrastructure_Flag>
    <Freight_RU_Flag>true</Freight_RU_Flag>
    <Passenger_RU_Flag>true</Passenger_RU_Flag>
    <Central_Entity_Flag>true</Central_Entity_Flag>
    <National_Entity_Flag>true</National_Entity_Flag>
    <Other_Company_flag>true</Other_Company_flag>
    <Free_Text>Train on a track with motion stabled with external air supply for braking systems</Free_Text>
    <Add_Date>2018-10-16</Add_Date>
    <Modified_Date>2018-10-16</Modified_Date>
  </SubsidiaryType>
</SubsidiaryTypes>
```

Created files are downloaded to the local drive.

Export XSD definition:

See attachement of manual

Import

Import can be done by means of csv files using the following structure:

```
Subsidiary_Type_Code,Subsidiary_Type_Name,IM_Flag,Freight_RU_Flag,Passenger_RU_Flag,Central_Entity_Flag,National_Entity_Flag,Others_Flag,Free_Text,action_flag
```

Action flag controls the type of import:

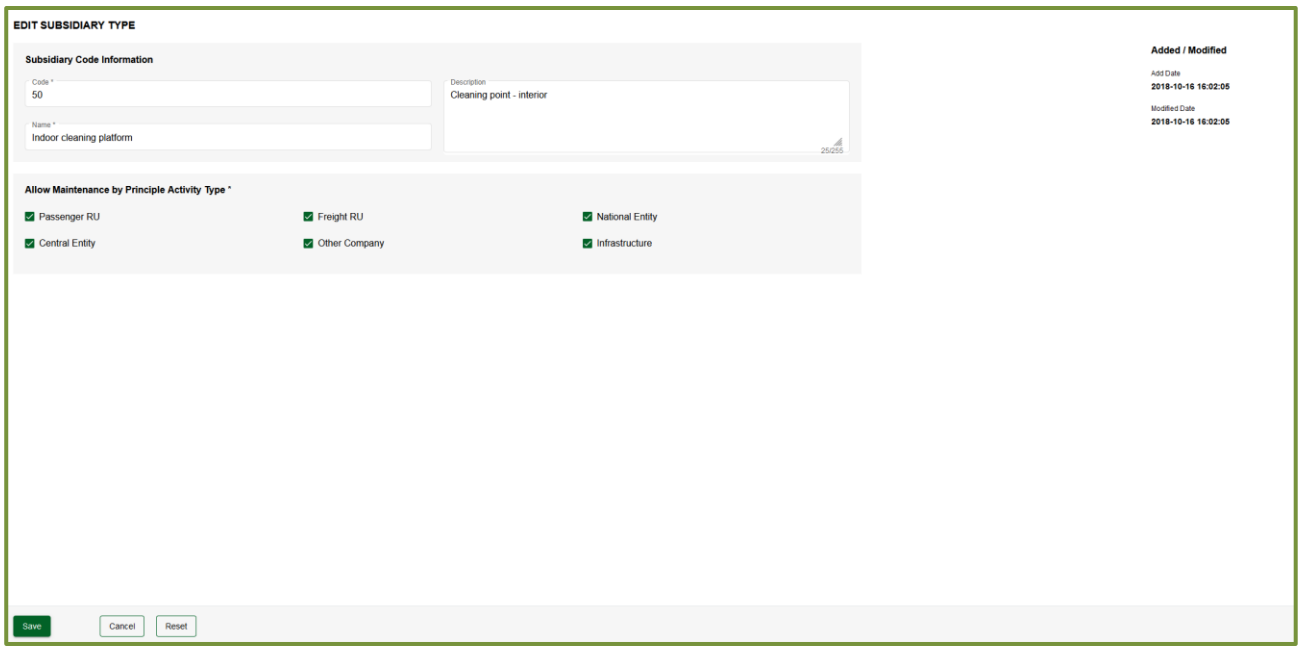
1....create new subsidiary type

2....update existing subsidiary type

3....delte existing subsidiary type

In the case of errors (syntactical or semantical) the user gets a response explaining the issue and in case it is related to specific subsidiary types -> the row where the issue was found. Be aware that the entire import file is not imported if an error is found.

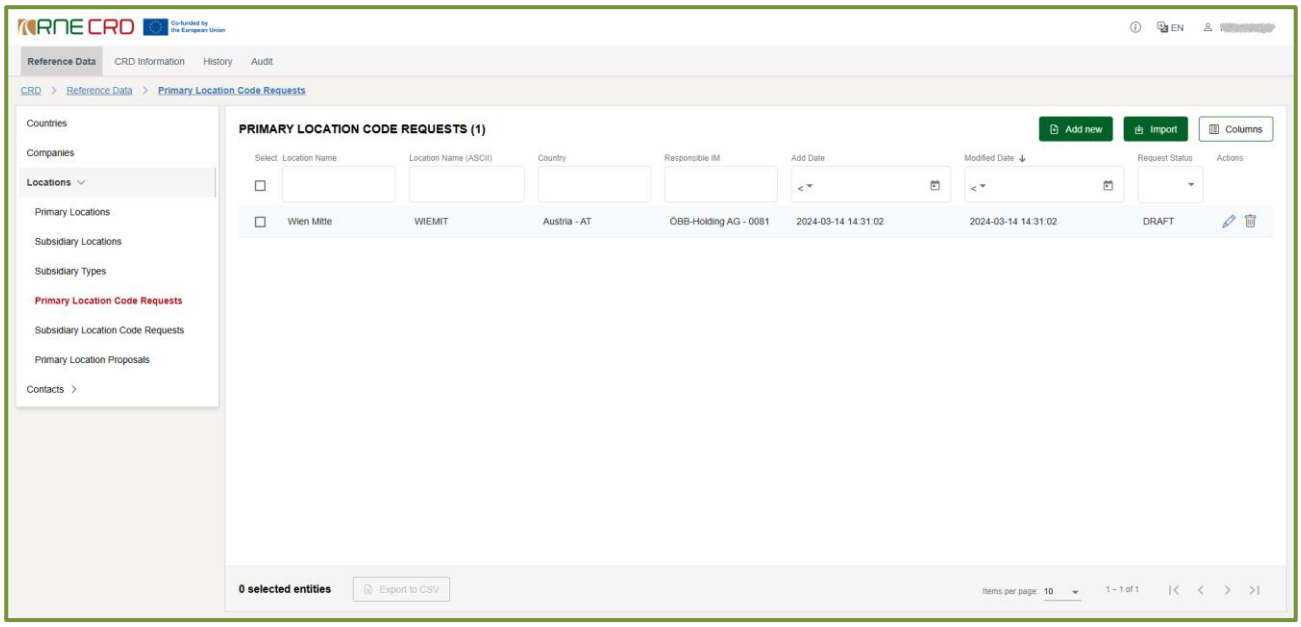
4.5.2 Subsidiary Type details



4.6 Primary Location Code Request

4.6.1 Primary Location Code Requests Overview

Users with the necessary permissions can access the overview of the primary location code requests via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Add new a new primary location code request can be created.

Import primary location code requests may be imported (see below)

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected primary location code requests can be exported to a csv-file (see below)

Edit: Opens the detail dialogue by means of which data can be edited

Delete: Let the user delete this entity.

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in csv data structure.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export button is activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Export selected rows to csv: a comma separated csv is generated with the following structure:

```
Country_ISO_code,Start_Validity,End_Validity,Responsible_IM_Code,Location_Name,Location_Name_ASCII,NUTS_Code,Container_Handling_Flag,Handover_Point_Flag,Freight_Possible_Flag,Freight_Start_Validity,Freight_End_Validity,Passenger_Possible_Flag,Passenger_Start_Validity,Passenger_End_Validity,Latitude,Longitude,Free_Text,Add_Date,Mod_Date,Request_Status
```

Created files are downloaded to the local drive.

Import

Import can be done by means of csv files using the following structure:

```
Country_ISO_code,Start_Validity,End_Validity,Responsible_IM_Code,Location_Name,Location_Name_ASCII,NUTS_Code,Container_Handling_Flag,Handover_Point_Flag,Freight_Possible_Flag,Freight_Start_Validity,Freight_End_Validity,Passenger_Possible_Flag,Passenger_Start_Validity,Passenger_End_Validity,Latitude,Longitude,Free_Text, Request_Status, action_flag
```

Requested status: Allowed values are

- Draft
- Submitted
- Rejected
- Approved

Action flag controls the type of import:

1....create new primary location code request

2....update existing primary location code request

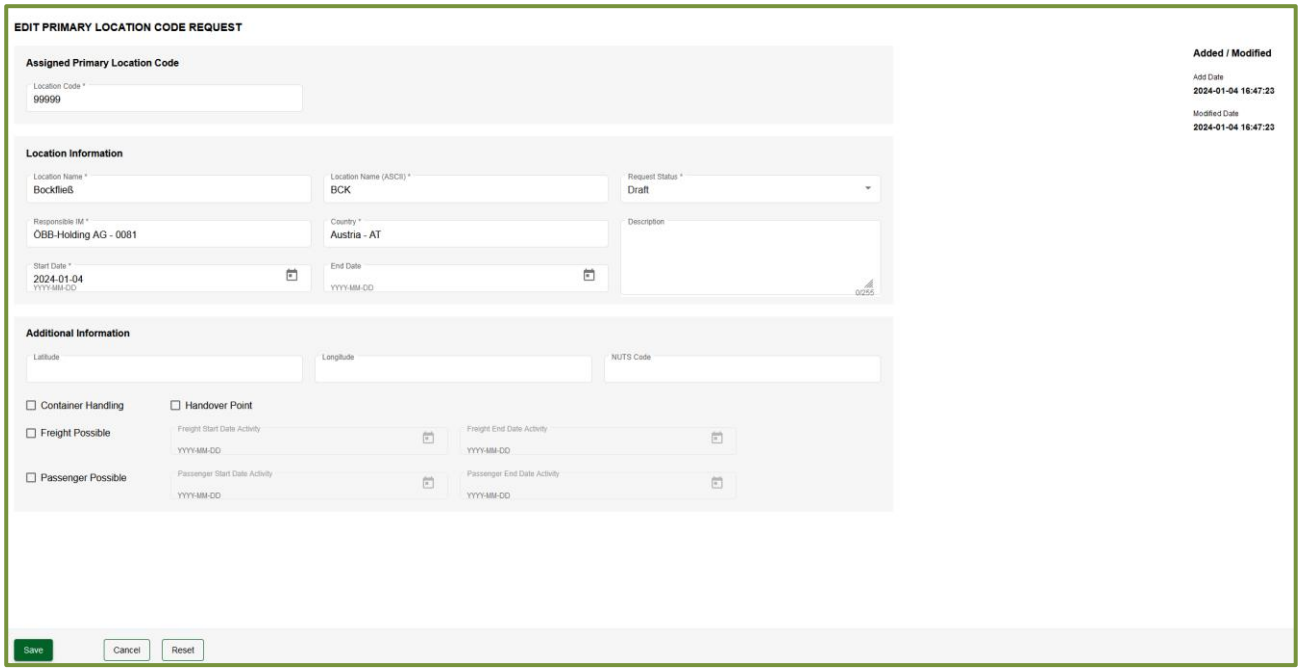
3....delete existing primary location code request

In the case of errors (syntactical or semantical) the user gets a response explaining the issue and in case it is related to specific primary location code requests -> the row where the issue was found. Be aware that the entire import file is not imported if an error is found.

4.6.2 Primary Location Code Request Details

These requests are managed using a workflow with four request statuses:

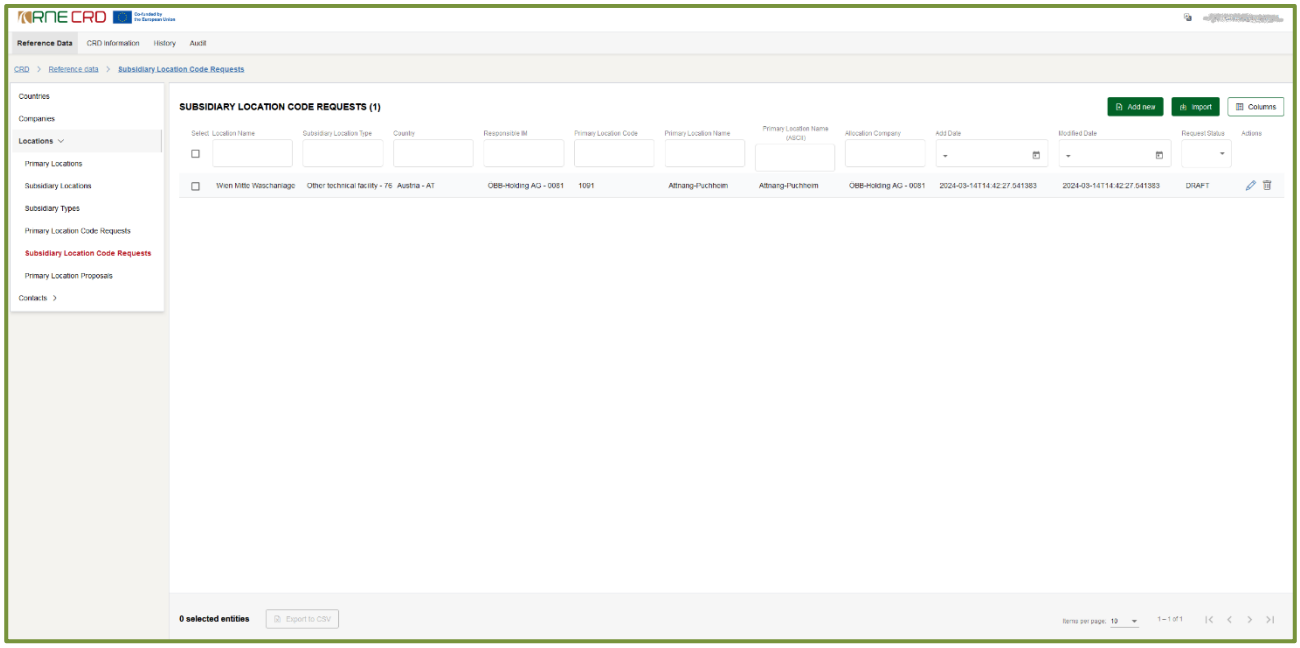
1. Draft: The initial status of the request. The user can make any number of updates in this status until he/she is ready to submit the request.
2. Submitted: The user submits the request to an appointed National Allocation Entity (NAE) of the country. The NAE decides on the outcome of the request. (The NAE of the country receives a notification email to its email address. Also, all CRD users which company is equal to the responsible IM of the request will receive a notification email).
3. Approved: The NAE approves of the request and assigns a Primary Location Code. The new Primary Location is automatically created with the information from the PLCR and the assigned code.
4. Rejected: The NAE rejects the request.



4.7 Subsidiary Location Code Request

4.7.1 Subsidiary Location Code Request overview

Users with the necessary permissions can access the overview of the subsidiary location code requests via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Add new a new subsidiary location code request can be created.

Import primary subsidiary code requests may be imported (see below)

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected subsidiary location code requests can be exported to a csv-file (see below)

 Edit: Opens the detail dialogue by means of which data can be edited

 Delete: Let the user delete this entity.

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in csv data structure.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export button is activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

```
Primary_Location_Code,Country_ISO_code,Primary_Location_Start_Validity,Subsidiary_Type_Code,Subsidiary_Location_Name,Start_Validity,End_Validity,Allocation_Company_Code,Latitude,Longitude,Free_Text,Add_Date,Mod_Date,Request_Status
```

Created files are downloaded to the local drive.

Import

Import can be done by means of csv files using the following structure:

```
Primary_Location_Code,Country_ISO_code,Primary_Location_Start_Validity,Subsidiary_Type_Code,Subsidiary_Location_Name,Start_Validity,End_Validity,Allocation_Company_Code,Latitude,Longitude,Free_Text,Request_Status, action_flag
```

Requested status: Allowed values are

- Draft
- Submitted
- Rejected
- Approved

Action flag controls the type of import:

1....create new subsidiary location code request

2....update existing subsidiary location code request

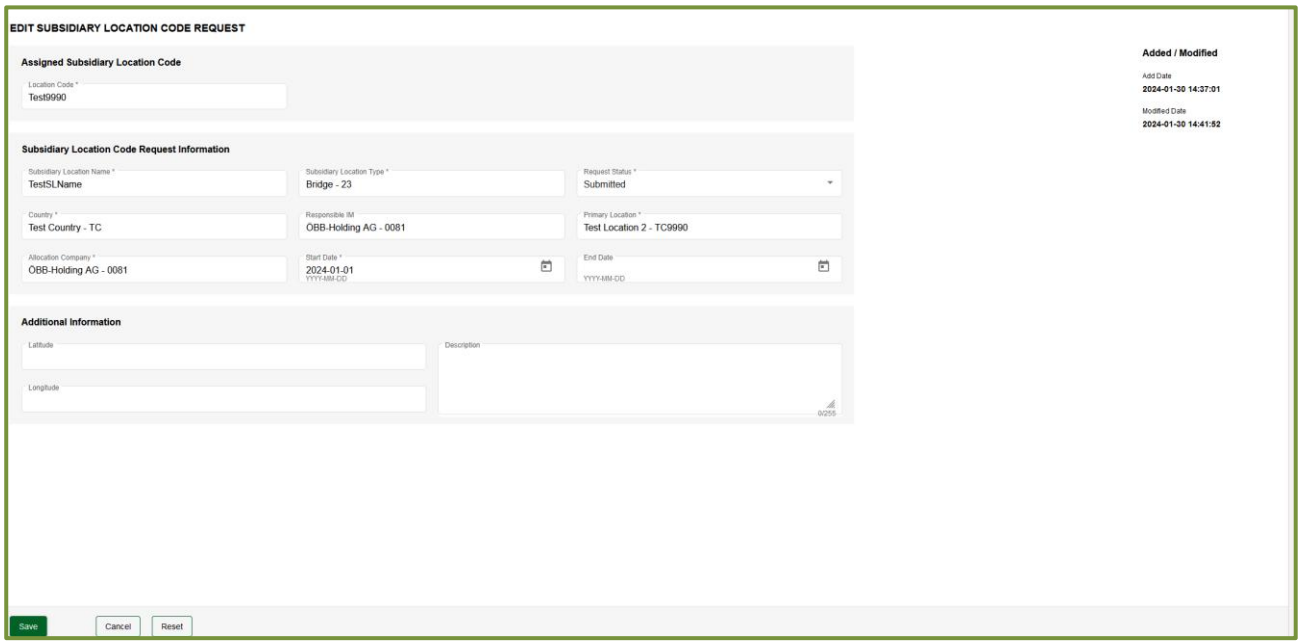
3....delete existing subsidiary location code request

In the case of errors (syntactical or semantical) the user gets a response explaining the issue and in case it is related to specific subsidiary location code requests -> the row where the issue was found. Be aware that the entire import file is not imported if an error is found.

4.7.2 Subsidiary Location Code Request details

These requests are managed using a workflow with four request statuses:

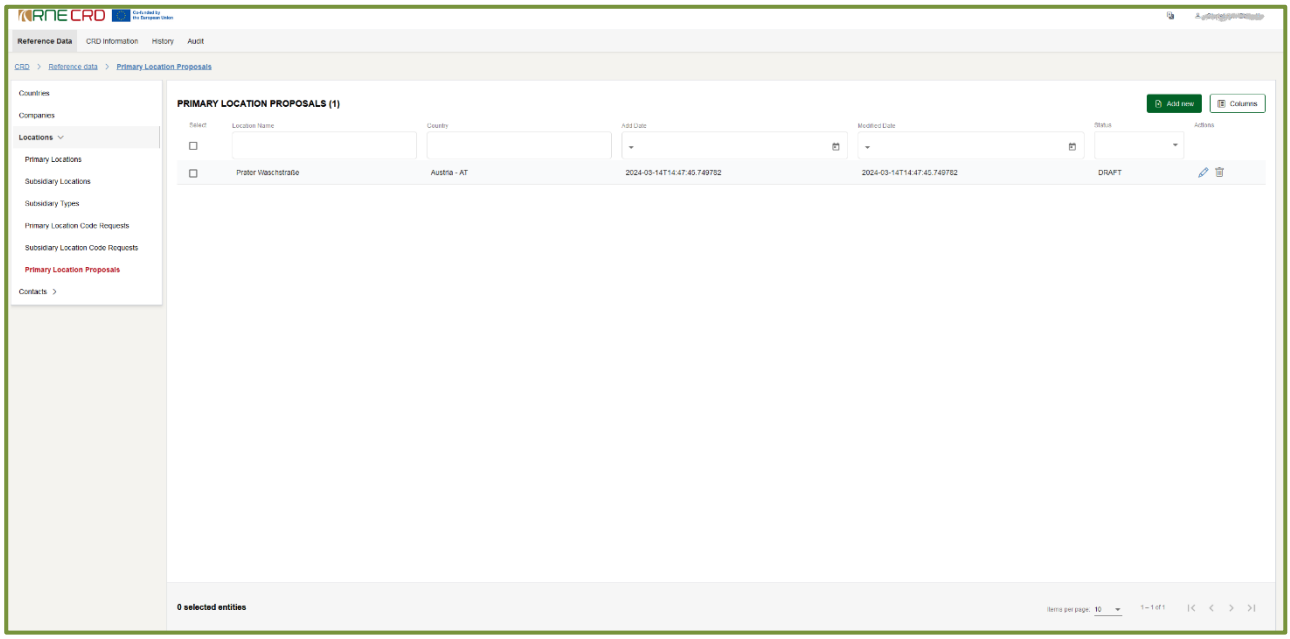
1. Draft: The initial status of the request. The user can make any number of updates in this status until he/she is ready to submit the request.
2. Submitted: The user submits the request to an appointed National Allocation Entity (NAE) of the country. The NAE decides on the outcome of the request. (The NAE of the country receives a notification email to its email address. Also, all CRD users which company is equal to the allocation company of the request will receive a notification email).
3. Approved: The NAE approves of the request and assigns a Subsidiary Location Code. The new Subsidiary Location is automatically created with the information from the SLCR and the assigned code.
4. Rejected: The NAE rejects the request.



4.8 Primary Location Proposal

4.8.1 Primary Location Proposal overview

Users with the necessary permissions can access the overview of the primary location requests via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Add new a new subsidiary location code request can be created.

Columns a column selector is opened by means of which the shown columns can be changed.

Edit: Opens the detail dialogue by means of which data can be edited

Delete: Let the user delete this entity.

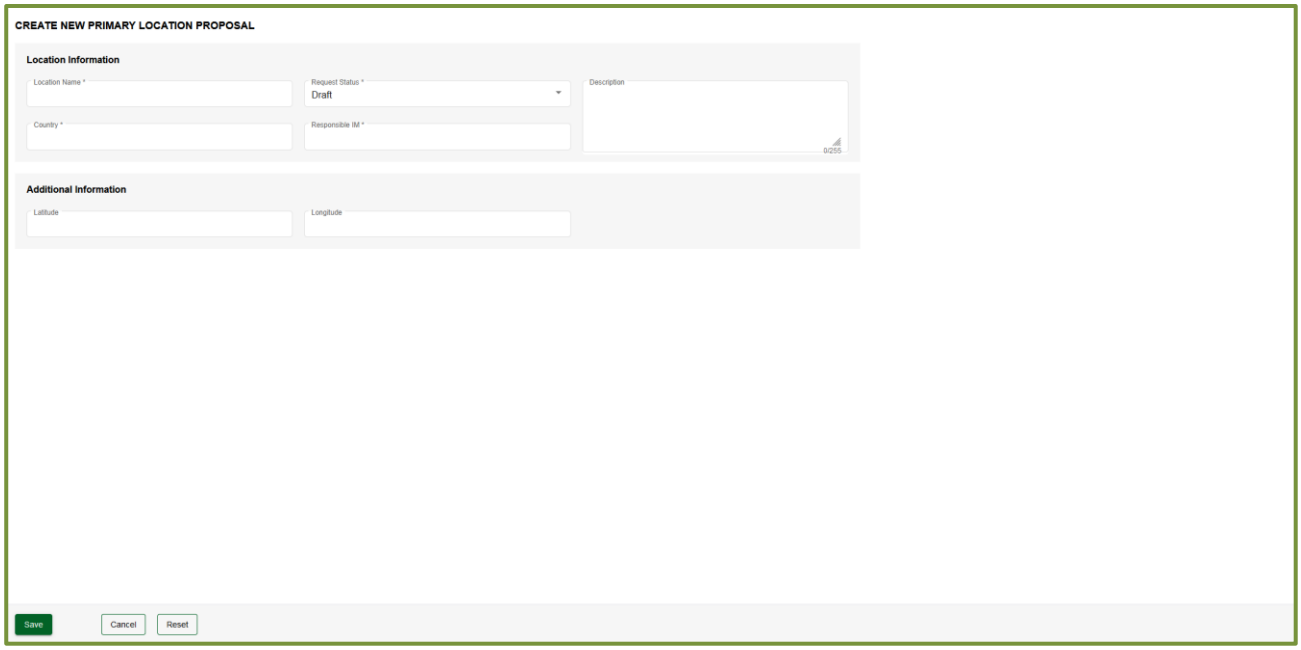
Columns

This functionality can be used to hide or add columns in the table overview shown.

4.8.2 Primary Location Proposal details

These requests are managed using a workflow with four request statuses:

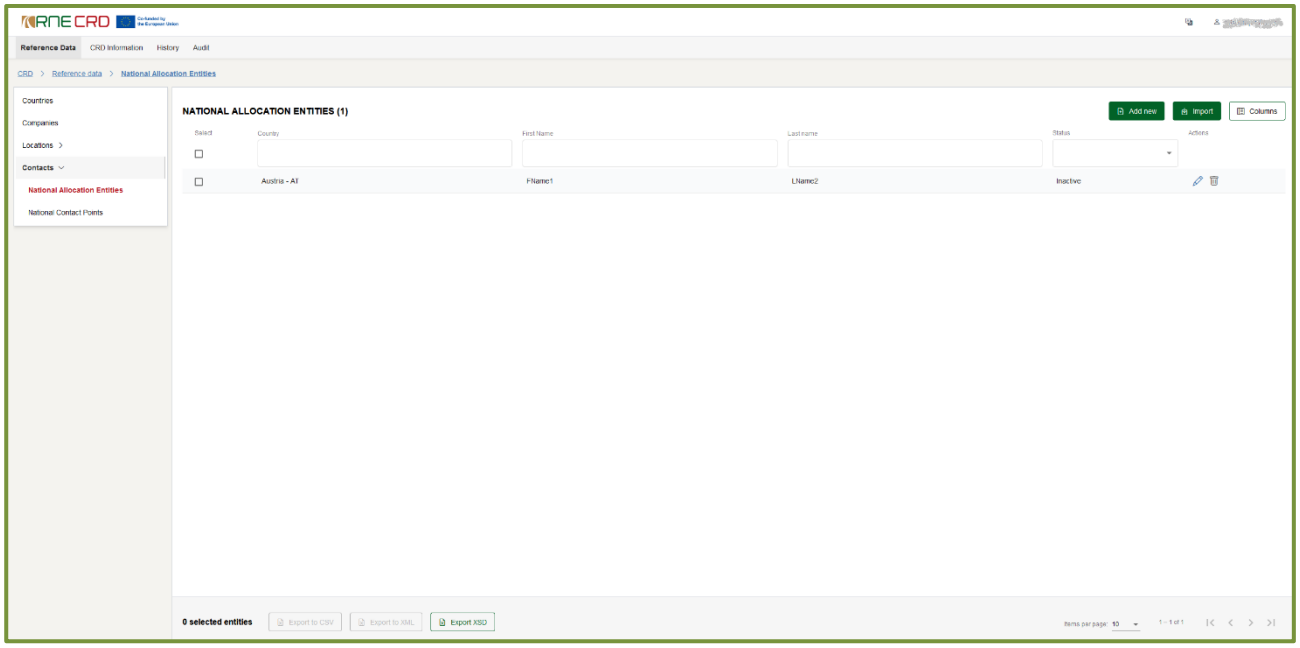
1. Draft: The initial status of the request. The user can make any number of updates in this status until he/she is ready to submit the request.
2. Submitted: The user submits the request to an appointed National Allocation Entity (NAE) of the country. The NAE decides on the outcome of the request. (The NAE of the country receives a notification email to its email address. Also, all CRD users which company is equal to the resonsibleIM of the request will receive a notification email).
3. Approved: The NAE approves of the proposal and assigns a responsible IM. The IM can then act on the proposal by creating a Primary Location or a Primary Location Code Request from the proposal.
4. Rejected: The NAE rejects the request.



4.9 National Allocation Entity

4.9.1 National Allocation Entity Overview

Users with the necessary permissions can access the overview of the national allocation entities via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Add new a new national allocation entity can be created.

Import primary national allocation entity may be imported (see below)

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected national allocation entity can be exported to a csv-file (see below)

not used in application yet; always inactive

not used in application yet; always inactive


Edit: Opens the detail dialogue by means of which data can be edited


Delete: Let the user delete this entity.

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in csv data structure.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export button is activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Country_ISO_code,Start_Validity,End_Validity,First_Name,Last_Name,Email,Comment,Active_Flag,Add_Date, Mod_Date

Created files are downloaded to the local drive.

Import

Import can be done by means of csv files using the following structure:

Country_ISO_code,Start_Validity,End_Validity,First_Name,Last_Name,Company_Name,Email,Comment,**action_flag**

Action flag controls the type of import:

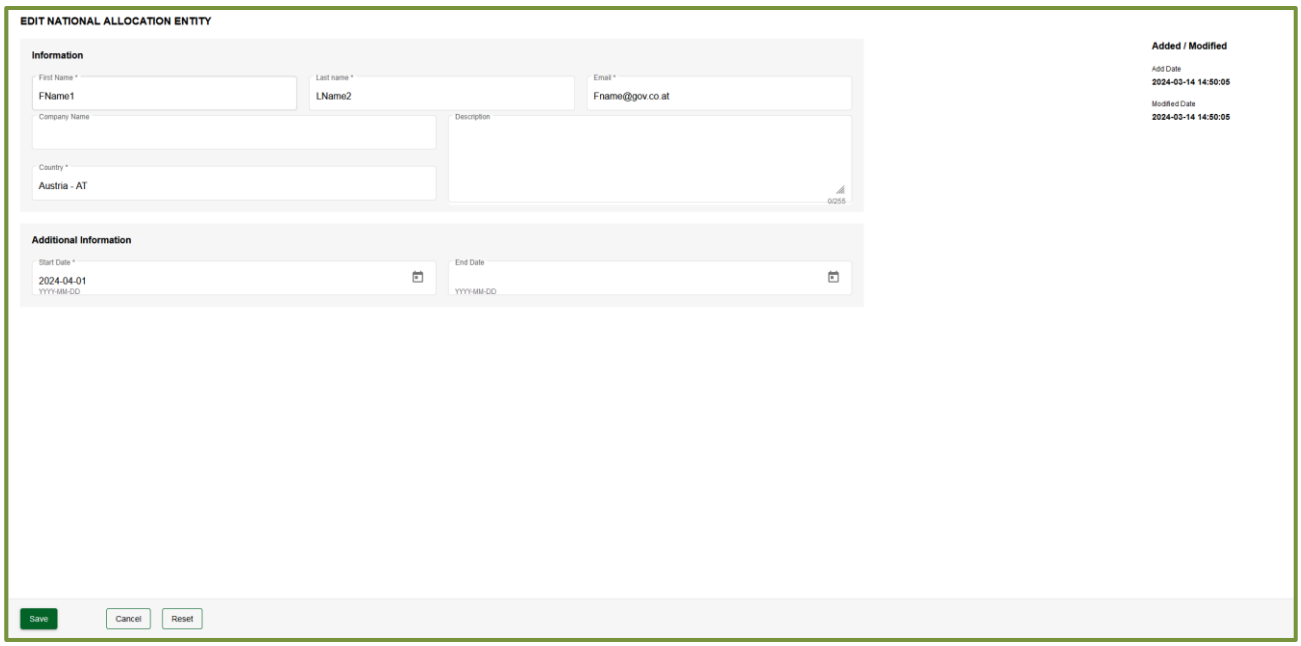
1....create new NAE

2....update existing NAE

3....delete existing NAE

In the case of errors (syntactical or semantical) the user gets a response explaining the issue and in case it is related to specific primary location code requests -> the row where the issue was found. Be aware that the entire import file is not imported if an error is found.

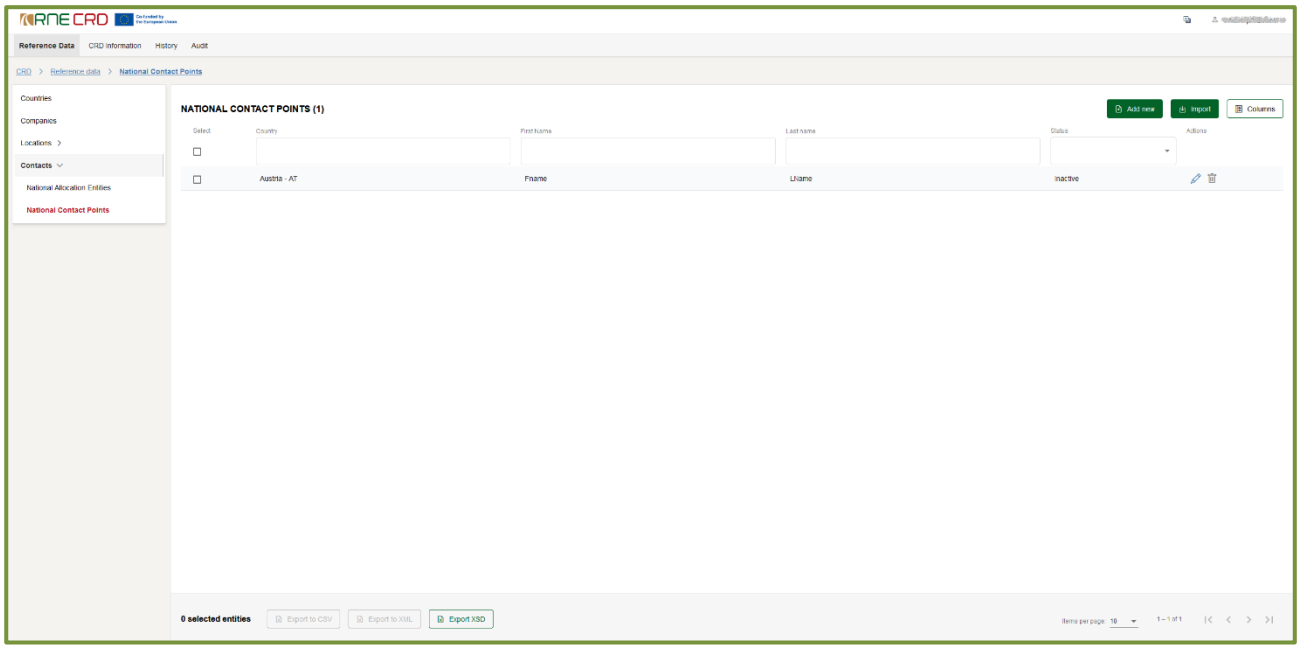
4.9.2 National Allocation Entity details



4.10 National Contact Point

4.10.1 National Contact Point overview

Users with the necessary permissions can access the overview of the national contact points via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Add new a new national contact point can be created.

Import primary national contact point may be imported (see below)

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected national contact point can be exported to a csv-file (see below)

Export to XML not used in application yet; always inactive

Export XSD not used in application yet; always inactive

Edit: Opens the detail dialogue by means of which data can be edited

 Delete: Let the user delete this entity.

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in csv data structure.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export button is activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Country_ISO_code,Start_Validity,End_Validity,First_Name,Last_Name,Email,Comment,Active_Flag,Add_Date, Mod_Date

Created files are downloaded to the local drive.

Import

Import can be done by means of csv files using the following structure:

Country_ISO_code,Start_Validity,End_Validity,First_Name,Last_Name,Company_Name,Email,Comment,**action_flag**

Action flag controls the type of import:

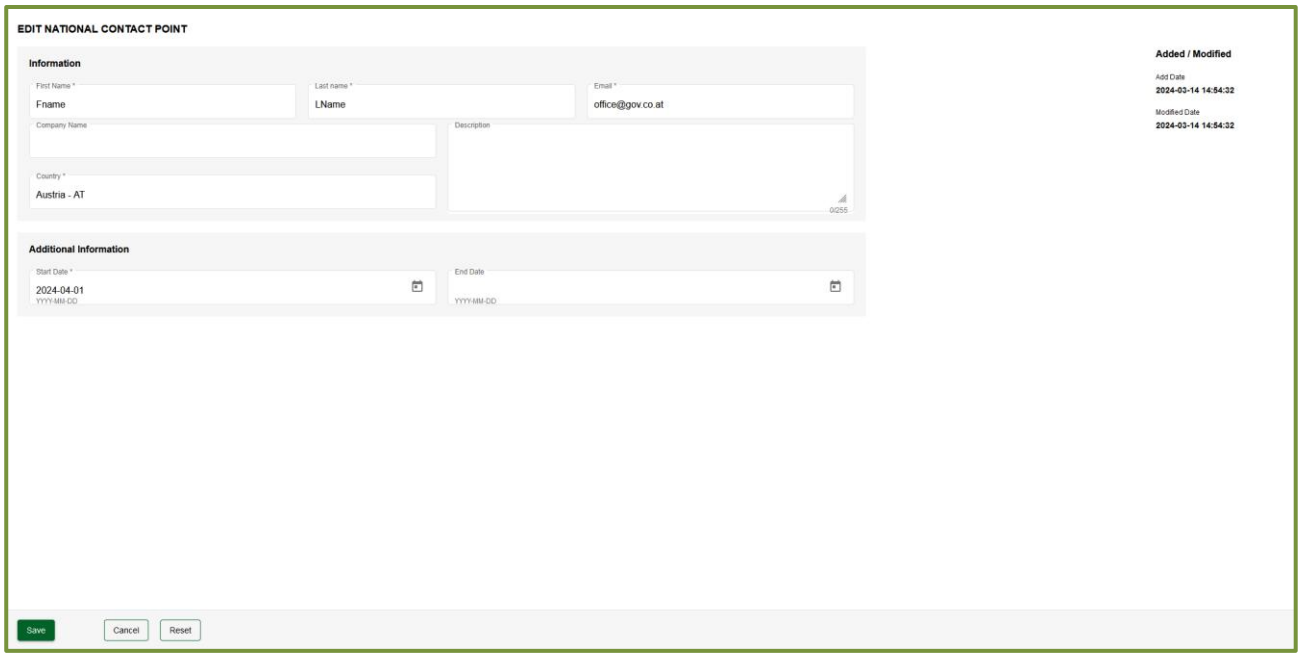
1....create new NCP

2....update existing NCP

3....delete existing NCP

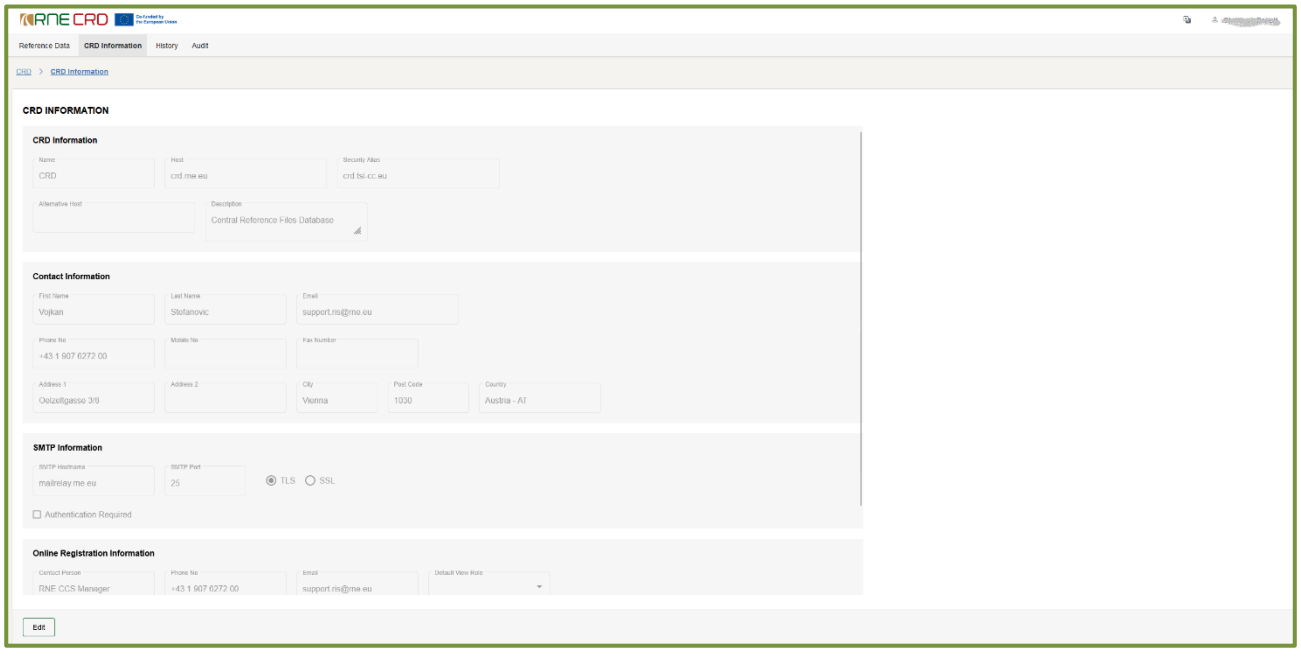
In the case of errors (syntactical or semantical) the user gets a response explaining the issue and in case it is related to specific primary location code requests -> the row where the issue was found. Be aware that the entire import file is not imported if an error is found.

4.10.2 National Contact Point details



5 CRD Information

Users with the necessary permissions can access the CRD information data via the following sub-menu item.

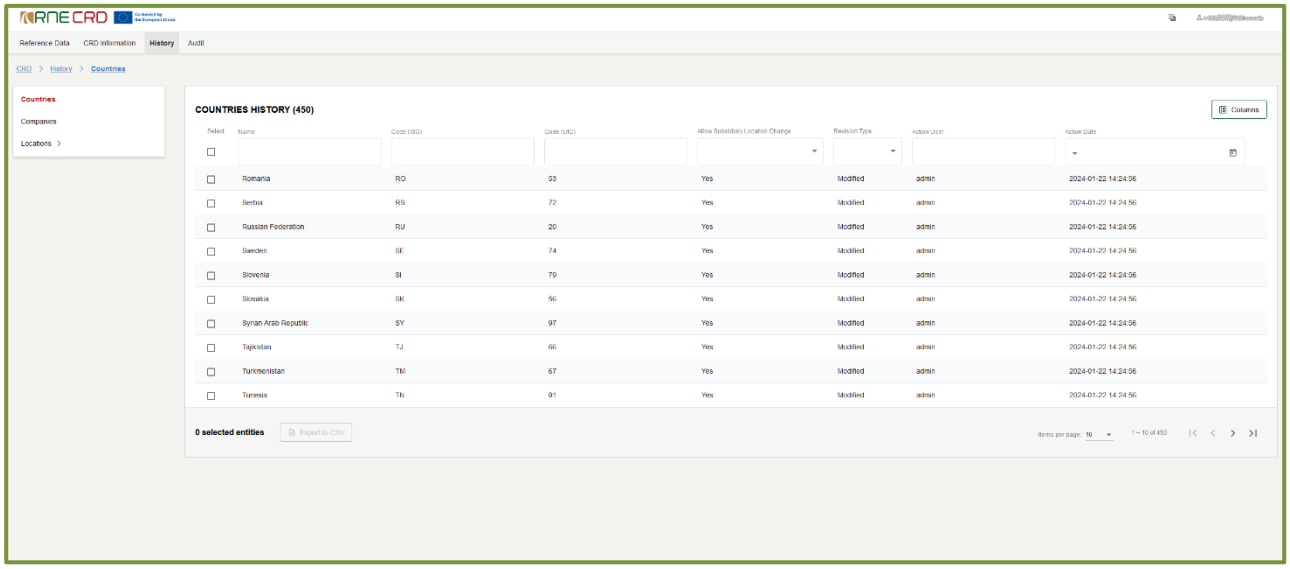


By means of necessary permissions the data can be edited using the action button “edit”. The read-only view of the screens turns to edit mode and data can be adapted.

6 History

6.1 Countries’ history

Users with the necessary permissions can access the country history data via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected country records can be exported to a csv-file (see below)

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in csv data structure.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export button is activated.

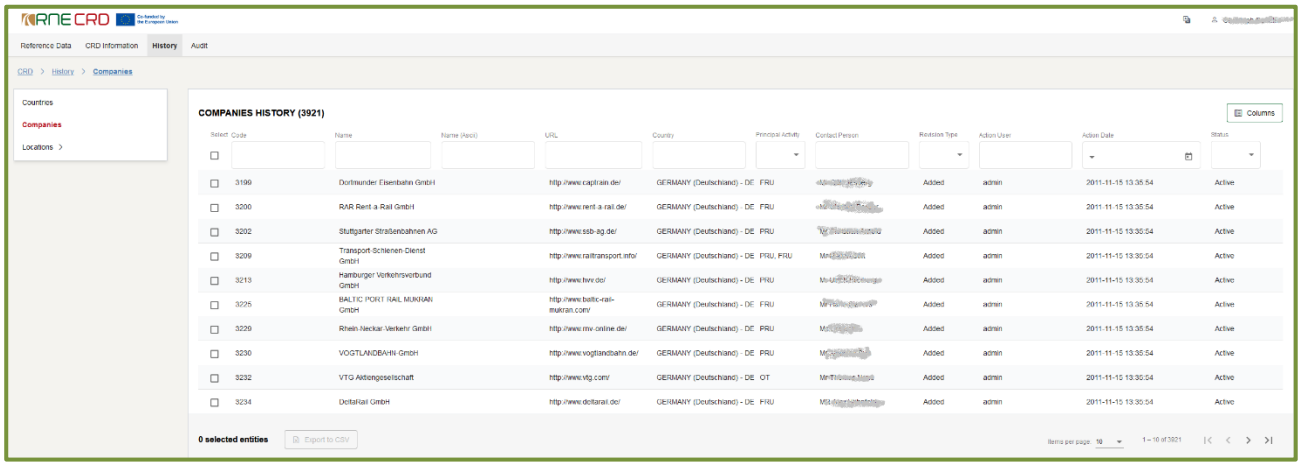
Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

```
Country_ISO_code,Country_UIC_Ident,Country_Name_EN,Country_Name_FR,Country_Name_DE,Sub_Loc_Code_Flag,Action,Action User,Action Date
```

Created files are downloaded to the local drive.

6.2 Companies' history

Users with the necessary permissions can access the company history data via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected company records can be exported to a csv-file (see below)

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in csv data structure.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export button is activated.

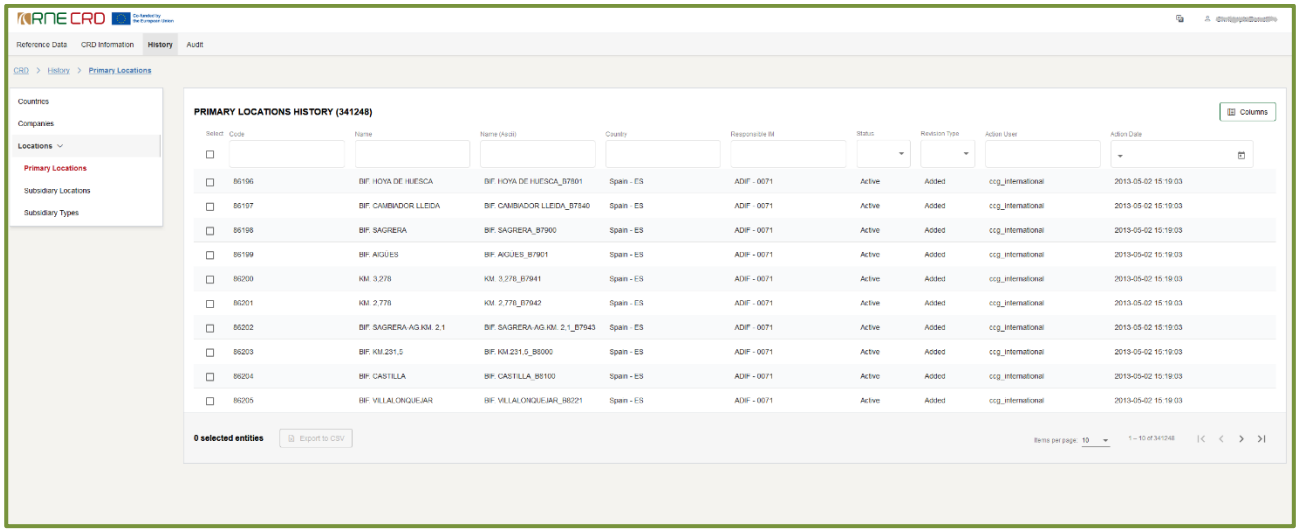
Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

```
Company_UIC_Code,Company_Short_Name,Company_Name,Company_Name_ASCII,Company_URL,Country_ISO_code,Start_Validity,End_Validity,Free_Text,Contact_Person,Email,Phone_Number,Mobile_Number,FAX_Number,Address,City,Postal_Code,Passenger_Flag,Freight_Flag,Infrastructure_Flag,Other_Company_flag,NA_Entity_Flag,CA_Entity_Flag,Active_Flag,Action,Action User,Action Date
```

Created files are downloaded to the local drive.

6.3 Primary Locations' history

Users with the necessary permissions can access the primary location history data via the following sub-menu item.



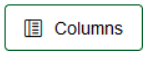
Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

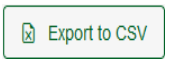
Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions



a column selector is opened by means of which the shown columns can be changed.



selected primary location records can be exported to a csv-file (see below)

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in csv data structure.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export button is activated.

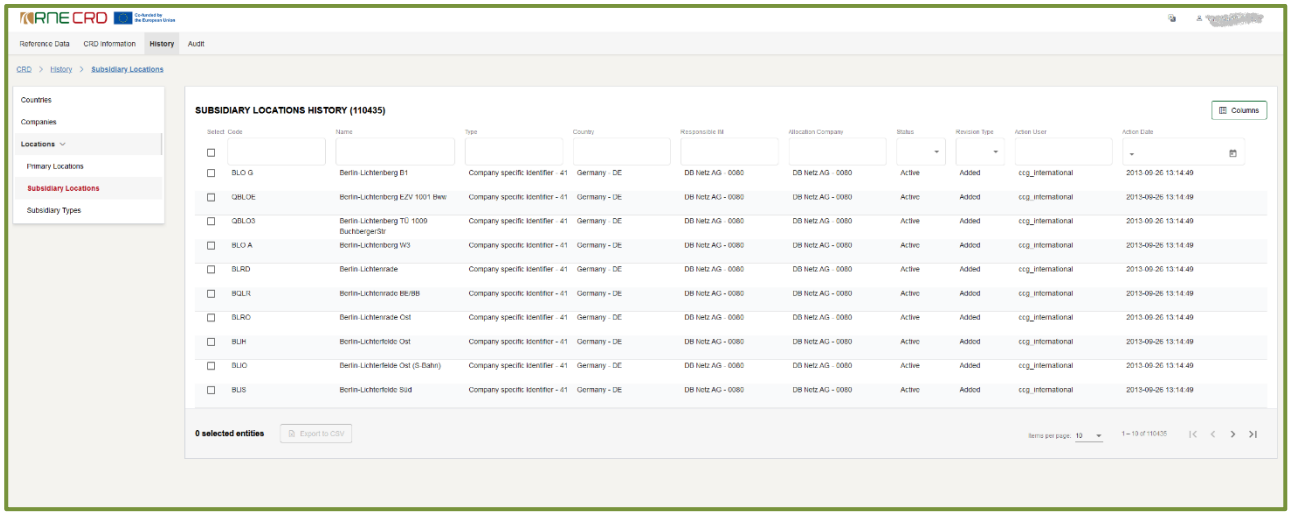
Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Country_ISO_code,Primary_Location_Code,Start_Validity,End_Validity,Responsible_IM_Code,Location_Name,Location_Name_ASCII,NUTS_Code,Container_Handling_Flag,Handover_Point_Flag,Freight_Possible_Flag,Freight_Start_Validity,Freight_End_Validity,Passenger_Possible_Flag,Passenger_Start_Validity,Passenger_End_Validity,Latitude,Longitude,Free_Text,Active_Flag,Action,Action User,Action Date

Created files are downloaded to the local drive.

6.4 Subsidiary Locations' history

Users with the necessary permissions can access the subsidiary location history data via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Columns a column selector is opened by means of which the shown columns can be changed.

Export to CSV selected subsidiary location records can be exported to a csv-file (see below)

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in csv data structure.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export button is activated.

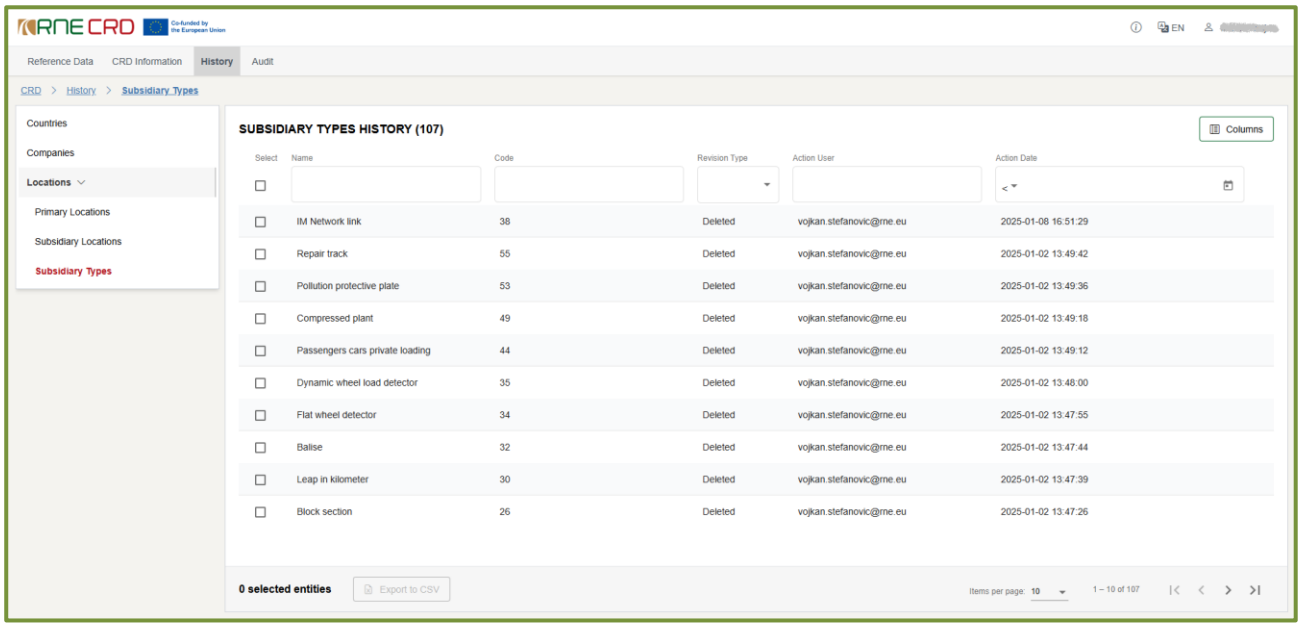
Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

Country_ISO_code,Responsible_IM_Code,Primary_Location_Code,Subsidiary_Type_Code,Subsidiary_Location_Code,Subsidiary_Location_Name,Start_Validity,End_Validity,Allocation_Company_Code,Latitude,Longitude,Free_Text,Active_Flag,Action,Action User,Action Date

Created files are downloaded to the local drive.

6.5 Subsidiary Types' history

Users with the necessary permissions can access the subsidiary type history data via the following sub-menu item.



Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Columns a column selector is opened by means of which the shown columns can be changed.

selected subsidiary location records can be exported to a csv-file (see below)

Columns

This functionality can be used to hide or add columns in the table overview shown.

Export

Export can be performed in csv data structure.

Precursor for an export is that at least one row of the table is selected (checkboxes on the left side of the table shown; checkbox beside the filter fields selects all shown rows in the table). If this is met the export button is activated.

Hint: if all rows are selected the user can choose between export of all rows in the shown screen or all rows in the table.

```
Subsidiary_Type_Code,Subsidiary_Type_Name,IM_Flag,Freight_RU_Flag,Passenger_RU_Flag,Central_Entity_Flag,National_Entity_Flag,Others_Flag,Free_Text,Action,Action User,Action Date
```

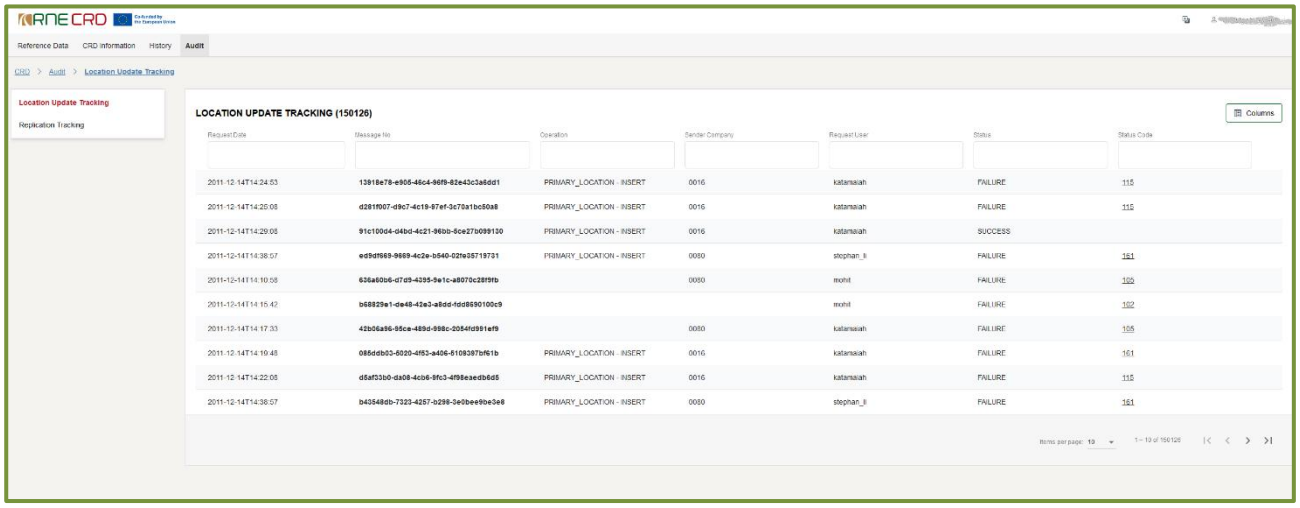
Created files are downloaded to the local drive.

Per-Entity Historical Data Export: A new 'Export History' button has been added to the detail screens of Country, Company, Primary Location, Subsidiary Location and Subsidiary Type (CRD / Reference Data). Clicking the button downloads a CSV file containing the complete change history for that specific entity. This complements the existing global history grids in CRD / History

7 Audit

7.1 Location Update Tracking

Users with the necessary permissions can access the location update tracking data via the following sub-menu item.



It is used to log the Location Update Track status. It provides details if a particular location update is successful with all the information or if it has failed with all the information. Location updates request/response are displayed in this screen and the status of updates can be searched by Requested User filter.

Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

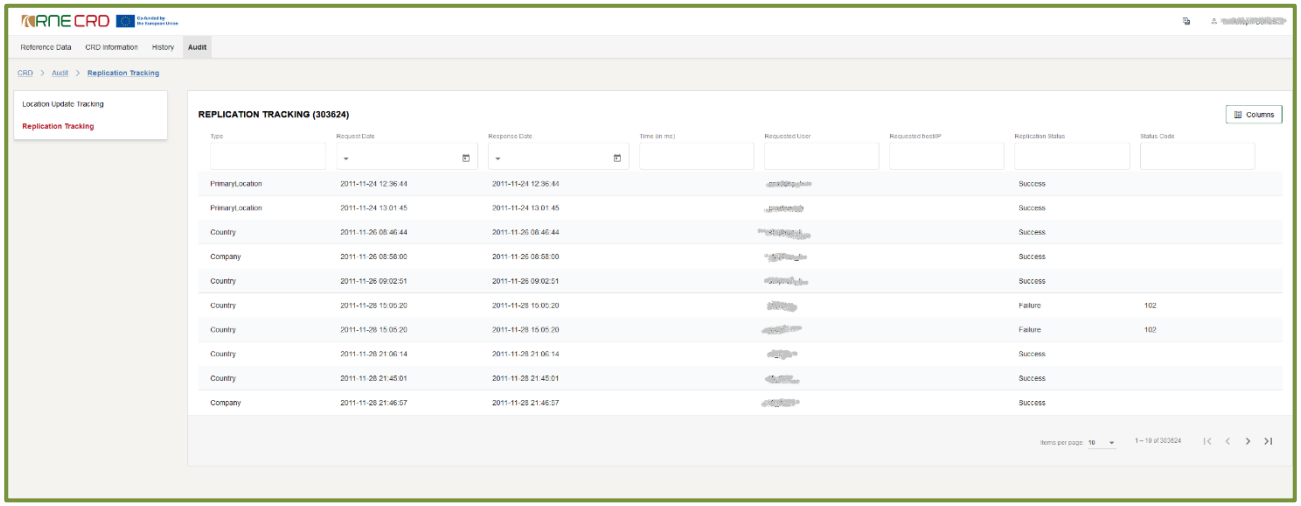
Actions

Columns a column selector is opened by means of which the shown columns can be changed.

Message No: A modal dialog opens showing the original data of the message of the update request.

7.2 Replication Update Tracking

Users with the necessary permissions can access the replication update tracking data via the following sub-menu item



It is used to log and track the replication of data on CRD side. This use case facilitates the user to view the Replication Tracking data in CRD. Using this feature, users can analyze the data, such as number of replication requests coming to CRD from LI, Type of data being replicated along with the Requested Date,Time taken to receive the response,Requested Host IP Address. It provides details if a particular replication is successful with all the information or if it has failed with all the information.

Filter / Sorting / Paging

Filter can be set directly below column headers. In text or composite fields, the application searches for all records that contains case-insensitive the typed-in characters. Other types may contain controls in the left part where logical operators can be set (e.g. all dates that are greater than a selected date).

Sorting can be done by means of clicking on the header (lexicographical sorting up or down)

Paging size can be changed in the lower right corner.

Actions

Columns a column selector is opened by means of which the shown columns can be changed.

8 CRD Entities and RIS Topology

The TAF/TSI-compliant entities are firmly integrated into the topological network of RIS. This means, for example, that the locations represent nodes in the infrastructure topology. As each entity has a validity period (valid-from and valid-to dates), it is not possible to manipulate the validity period of an entity at will without affecting the infrastructure networked with it.

For this reason, extensive logic is provided with the validity periond and the effects of changes to ensure data consistency at all times.

These dependencies are summarized in a separate document "Topological Model and Data Model RIS - Validity Periods", which provides a deeper understanding but is not normally necessary for working with CRD.

New PLC Instance and Topology: When a new instance of a Primary Location is created (via the 'Create new instance' checkbox or CSV import), the system automatically handles topology consistency by copying all related Subsidiary Locations, Segments and Tracks to the new instance, invalidating the old entities and updating all Section references to point to the new Segment. No manual topology cleanup is required

9 Notifications

The following table shows the overview of the email-notifications sent by the system with regards to CRD functionality:

Action	Recipients
Successful SOAP update location (PL or SL)	User which has triggered action
Unsuccessful SOAP update location (PL or SL)	User which has triggered action
Any change of status for PL proposal	User which has created PL proposal
Change of status for PL proposal to SUBMITTED	All active national allocation entities which belong to country of PL proposal
Change of status for PL proposal to APPROVED	All users which belong to responsible IM of PL proposal
Any change of status for PL request	All users which belong to responsible IM of PL request
Change of status for PL request to SUBMITTED	All active national allocation entities which belong to country of PL request
Any change of status for SL request	All users which belong to allocation company of SL request

Change of status for SL request to SUBMITTED	All active national allocation entities which belong to country of SL request
Creation of national allocation entity	RIS support (email address present in CRD Information page) as request to create new user in AD for national allocation entity
Creation of national contact point	RIS support (email address present in CRD Information page) as request to create new user in AD for national contact point
Deletion of user	RIS support (email address present in CRD Information page) as request to delete user in AD

10 CRD SOAP API

CRD provides SOAP interface to be able to integrate with 3rd party systems. The interface allows to

- Replicate CRD data:
  - Countries
  - Companies
  - Primary Locations
  - Subsidiary Locations
- Create or Update CRD data
  - Primary Locations
  - Subsidiary Locations

Both APIs can be configured by means of its WSDL.

The respective WSDL-definitions can be retrieved for

- Integration with stage-environment (for testing purposes):
  - ReplicationWSDL:
  - https://crdservice-stage.rne.eu/CRD/wsdl/CRDRFDataReplicationWS
  - UpdateWSDL
  - https://crdservice-stage.rne.eu/CRD/wsdl/CRDRefDataUpdateWS

- Integration with production-environment:
  - ReplicationWSDL:
  - https://crdservice-online.rne.eu/CRD/wsdl/CRDRFDataReplicationWS
  - UpdateWSDL
  - https://crdservice-online.rne.eu/CRD/wsdl/CRDRefDataUpdateWS

The URLs for executing the actual replication and update calls are as follows:

- Integration with stage-environment (for testing purposes):
  - Replication:
  - https://crdservice-stage.rne.eu/CRD/services/CRDRFDataReplicationWS
  - Update:
  - https://crdservice-stage.rne.eu/CRD/services/CRDRefDataUpdateWS
- Integration with production-environment:
  - Replication:
  - https://crdservice-online.rne.eu/CRD/services/CRDRFDataReplicationWS
  - Update:
  - https://crdservice-online.rne.eu/CRD/services/CRDRefDataUpdateWS
  -

11 Attachements

11.1 XSD Companies

The actual supported XSD definition for companies is:

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema attributeFormDefault="unqualified"
        xmlns="http://ws.refdata.crd.cc.uic.org/replication/schemas"
        elementFormDefault="qualified"
        targetNamespace="http://ws.refdata.crd.cc.uic.org/replication/schemas"
        xmlns:xs="http://www.w3.org/2001/XMLSchema">
   <xs:element name="Companies">
      <xs:complexType>
         <xs:sequence>
            <xs:element name="Company" maxOccurs="unbounded"
                  minOccurs="0">
               <xs:complexType>
                  <xs:sequence>
                     <xs:element ref="Company_Name"/>
                     <xs:element ref="Company_Name_ASCII" minOccurs="0"/>
                     <xs:element ref="Company_UIC_Code"/>
                     <xs:element ref="Company_URL" minOccurs="0"/>
                     <xs:element ref="Country_ISO_Code"/>
                     <xs:element ref="Start_Validity"/>
                     <xs:element ref="End_Validity" minOccurs="0"/>
                     <xs:element ref="Company_Short_Name"/>
                     <xs:element ref="Free_Text" minOccurs="0"/>
                     <xs:element name="Contact_Details">
                        <xs:complexType>
                           <xs:sequence>
                              <xs:element ref="Contact_Person"/>
                              <xs:element ref="Email" minOccurs="0"/>
```

```
                    <xs:element ref="Phone_Number" minOccurs="0"/>
                    <xs:element ref="FAX_Number" minOccurs="0"/>
                    <xs:element ref="Address" minOccurs="0"/>
                    <xs:element ref="City" minOccurs="0"/>
                    <xs:element ref="Mobile_Number" minOccurs="0"/>
                    <xs:element ref="Postal_Code" minOccurs="0"/>
                  </xs:sequence>
                </xs:complexType>
              </xs:element>
              <xs:element ref="Passenger_RU_Flag"/>
              <xs:element ref="Freight_RU_Flag"/>
              <xs:element ref="Infrastructure_Flag"/>
              <xs:element ref="Other_Company_flag"/>
              <xs:element ref="National_Entity_Flag"/>
              <xs:element ref="Central_Entity_Flag"/>
              <xs:element ref="Active_Flag"/>
              <xs:element ref="Add_Date"/>
              <xs:element ref="Modified_Date" minOccurs="0"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="Company_Name" type="String1-255">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Company_Name_ASCII" type="String1-255">
    <xs:annotation>
```

```
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Company_UIC_Code" type="String4-4">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Company_URL" type="String-100">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>

  <xs:element name="Country_ISO_Code">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
    <xs:complexType>
      <xs:simpleContent>
        <xs:extension base="CountryIdentIso"/>
      </xs:simpleContent>
    </xs:complexType>
  </xs:element>
  <xs:simpleType name="CountryIdentIso">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
```

```
    </xs:annotation>
    <xs:restriction base="xs:string">
      <xs:minLength value="2"/>
      <xs:maxLength value="2"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:element name="Start_Validity" type="Date">
    <xs:annotation>
      <xs:documentation/>
    </xs:annotation>
  </xs:element>
  <xs:element name="End_Validity" type="Date">
    <xs:annotation>
      <xs:documentation/>
    </xs:annotation>
  </xs:element>
  <xs:element name="Company_Short_Name" type="String-50">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Free_Text" nillable="true" type="String-255">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Contact_Person" type="String1-255">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
```

```
    </xs:annotation>
  </xs:element>
  <xs:element nillable="true" name="Email" type="String-70">
    <xs:annotation>
      <xs:documentation/>
    </xs:annotation>
  </xs:element>
  <xs:element name="Phone_Number" type="String-70">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="FAX_Number" type="String-70">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Address" type="String1-255">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="City" type="String-50">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Mobile_Number" type="String-70">
```

```
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Postal_Code" type="String-10">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>

  <xs:element name="Passenger_RU_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Freight_RU_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Infrastructure_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Other_Company_flag" type="xs:boolean">
    <xs:annotation>
```

```
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Central_Entity_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="National_Entity_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Active_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Add_Date" type="Date">
    <xs:annotation>
      <xs:documentation/>
    </xs:annotation>
  </xs:element>
  <xs:element name="Modified_Date" type="Date">
    <xs:annotation>
      <xs:documentation/>
    </xs:annotation>
  </xs:element>
```

```
<xs:simpleType name="String-10">
  <xs:restriction base="xs:string">
    <xs:maxLength value="10"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="String-70">
  <xs:restriction base="xs:string">
    <xs:maxLength value="70"/>
    <xs:minLength value="0"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="String-50">
  <xs:restriction base="xs:string">
    <xs:maxLength value="50"/>
    <xs:minLength value="0"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="String1-255">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="255"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="String-255">
  <xs:restriction base="xs:string">
    <xs:minLength value="0"/>
    <xs:maxLength value="255"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="String4-4">
  <xs:restriction base="xs:string">
    <xs:minLength value="4"/>
```

```
      <xs:maxLength value="4"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="String-100">
    <xs:restriction base="xs:string">
      <xs:maxLength value="100"/>
      <xs:minLength value="0"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="Date">
    <xs:restriction base="xs:string">
      <xs:pattern value="\d{4}[-](0[1-9]|1[012])[-](0[1-9]|[12][0-9]|3[01])"/>
    </xs:restriction>
  </xs:simpleType>
</xs:schema>
```

11.2 XSD Countries

The actual supported XSD definition for countries is:

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
      xmlns="http://ws.refdata.crd.cc.uic.org/replication/schemas"
      targetNamespace="http://ws.refdata.crd.cc.uic.org/replication/schemas"
      elementFormDefault="qualified" attributeFormDefault="unqualified">
  <xs:element name="Countries">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="Country" maxOccurs="unbounded"
              minOccurs="0">
          <xs:complexType>
            <xs:sequence>
              <xs:element ref="Country_Iso_Code"/>
              <xs:element ref="Country_Uic_Code" minOccurs="0"/>
              <xs:element ref="Country_Name_EN"/>
              <xs:element ref="Country_Name_FR" minOccurs="0"/>
              <xs:element ref="Country_Name_DE" minOccurs="0"/>
              <xs:element ref="Sub_Loc_Code_Flag" minOccurs="0"/>
              <xs:element ref="Add_Date"/>
              <xs:element ref="Modified_Date" minOccurs="0"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="Country_Iso_Code">
    <xs:annotation>
      <xs:documentation>
```

```
      </xs:documentation>
    </xs:annotation>
    <xs:complexType>
      <xs:simpleContent>
        <xs:extension base="CountryIdentIso"/>
      </xs:simpleContent>
    </xs:complexType>
  </xs:element>
  <xs:simpleType name="CountryIdentIso">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
    <xs:restriction base="xs:string">
      <xs:minLength value="2"/>
      <xs:maxLength value="2"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:element name="Country_Uic_Code" type="String-2">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Country_Name_EN" type="String1-255">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Country_Name_FR" type="String1-255">
    <xs:annotation>
```

```
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Country_Name_DE" type="String1-255">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Sub_Loc_Code_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:simpleType name="String-2">
    <xs:restriction base="xs:string">
      <xs:minLength value="01"/>
      <xs:maxLength value="99"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="String1-255">
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
      <xs:maxLength value="255"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:element name="Add_Date" type="Date">
    <xs:annotation>
      <xs:documentation></xs:documentation>
    </xs:annotation>
```

```
  </xs:element>
  <xs:element name="Modified_Date" type="Date">
    <xs:annotation>
      <xs:documentation></xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:simpleType name="Date">
    <xs:restriction base="xs:string">
      <xs:pattern value="\d{4}[-](0[1-9]|1[012])[-](0[1-9]|[12][0-9]|3[01])"/>
    </xs:restriction>
  </xs:simpleType>
</xs:schema>
```

11.3 XSD Primary Locations

The actual supported XSD definition for Primary Locations is:

```
<xs:schema attributeFormDefault="unqualified"
      xmlns="http://ws.refdata.crd.cc.uic.org/replication/schemas"
      elementFormDefault="qualified" xmlns:xs="http://www.w3.org/2001/XMLSchema"
      targetNamespace="http://ws.refdata.crd.cc.uic.org/replication/schemas">
  <xs:element name="PrimaryLocations">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="Primary_Location" maxOccurs="unbounded"
            minOccurs="0">
          <xs:complexType>
            <xs:choice maxOccurs="unbounded" minOccurs="0">
              <xs:element ref="Country_Iso_Code"/>
              <xs:element ref="Location_Code"/>
              <xs:element ref="Start_Validity"/>
              <xs:element ref="End_Validity" minOccurs="0"/>
```

```
            <xs:element ref="ResponsibleIM"/>
            <xs:element ref="Location_Name"/>
            <xs:element ref="Location_Name_ASCII"/>
            <xs:element ref="NUTS_Code" minOccurs="0"/>
            <xs:element ref="Container_Handling_Flag" minOccurs="0"/>
            <xs:element ref="Handover_Point_Flag" minOccurs="0"/>
            <xs:element ref="Freight_Possible_Flag" minOccurs="0"/>
            <xs:element ref="Freight_Start_Validity" minOccurs="0"/>
            <xs:element ref="Freight_End_Validity" minOccurs="0"/>
            <xs:element ref="Passenger_Possible_Flag" minOccurs="0"/>
            <xs:element ref="Passenger_Start_Validity" minOccurs="0"/>
            <xs:element ref="Passenger_End_Validity"/>
            <xs:element ref="Free_Text" minOccurs="0"/>
            <xs:element ref="Latitude" minOccurs="0"/>
            <xs:element ref="Longitude" minOccurs="0"/>
            <xs:element ref="Active_Flag"/>
            <xs:element ref="Add_Date"/>
            <xs:element ref="Modified_Date" minOccurs="0"/>
          </xs:choice>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="Country_Iso_Code">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:simpleContent>
      <xs:extension base="CountryIdentIso"/>
```

```
      </xs:simpleContent>
    </xs:complexType>
  </xs:element>
  <xs:element name="Location_Name" type="String-255">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Location_Name_ASCII" type="String-255">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="NUTS_Code" nillable="true" type="String5">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:simpleType name="CountryIdentIso">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
    <xs:restriction base="xs:string">
      <xs:minLength value="2"/>
      <xs:maxLength value="2"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:element name="Container_Handling_Flag" type="xs:boolean">
```

```
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Handover_Point_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Freight_Possible_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Passenger_Possible_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Active_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Passenger_Start_Validity" type="Date">
    <xs:annotation>
      <xs:documentation></xs:documentation>
```

```
  </xs:annotation>
</xs:element>
<xs:element name="Passenger_End_Validity" type="Date">
  <xs:annotation>
    <xs:documentation></xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Freight_Start_Validity" type="Date">
  <xs:annotation>
    <xs:documentation></xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Freight_End_Validity" type="Date">
  <xs:annotation>
    <xs:documentation></xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Add_Date" type="Date">
  <xs:annotation>
    <xs:documentation></xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Modified_Date" type="Date">
  <xs:annotation>
    <xs:documentation></xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Start_Validity" type="Date">
  <xs:annotation>
    <xs:documentation></xs:documentation>
  </xs:annotation>
</xs:element>
```

```
<xs:element name="End_Validity" type="Date">
  <xs:annotation>
    <xs:documentation></xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Free_Text" nillable="true" type="String-255">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Longitude" nillable="true" type="Decimal9-6">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Latitude" nillable="true" type="Decimal8-6">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="ResponsibleIM" type="CompanyCode">
  <xs:annotation>
    <xs:documentation></xs:documentation>
  </xs:annotation>
</xs:element>
<xs:simpleType name="CompanyCode">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
```

```
    </xs:annotation>
    <xs:restriction base="String4-4"/>
  </xs:simpleType>
  <xs:element name="Location_Code" type="String1-5">
    <xs:annotation>
      <xs:documentation></xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:simpleType name="String1-5">
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
      <xs:maxLength value="5"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="String4-4">
    <xs:restriction base="xs:string">
      <xs:minLength value="4"/>
      <xs:maxLength value="4"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="String1-10">
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
      <xs:maxLength value="10" fixed="false"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="Decimal8-6">
    <xs:restriction base="xs:decimal">
      <xs:totalDigits value="14"/>
      <xs:fractionDigits value="6"/>
    </xs:restriction>
  </xs:simpleType>
```

```
  <xs:simpleType name="Decimal9-6">
    <xs:restriction base="xs:decimal">
      <xs:totalDigits value="15"/>
      <xs:fractionDigits value="6"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="String-255">
    <xs:restriction base="xs:string">
      <xs:maxLength value="255"/>
      <xs:minLength value="0"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="String5">
    <xs:restriction base="xs:string">
      <xs:maxLength value="5"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="Date">
    <xs:restriction base="xs:string">
      <xs:pattern value="\d{4}[-](0[1-9]|1[012])[-](0[1-9]|[12][0-9]|3[01])"/>
    </xs:restriction>
  </xs:simpleType>
</xs:schema>
```

11.4 XSD Subsidiary Location

The actual supported XSD definition for Subsidiary Locations is:

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
      xmlns="http://ws.refdata.crd.cc.uic.org/replication/schemas"
      targetNamespace="http://ws.refdata.crd.cc.uic.org/replication/schemas"
      elementFormDefault="qualified" attributeFormDefault="unqualified">

  <xs:element name="SubsidiaryLocations">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="Subsidiary_Location" maxOccurs="unbounded" minOccurs="0">
          <xs:annotation>
            <xs:documentation>Subsidiary Type information</xs:documentation>
          </xs:annotation>
          <xs:complexType>
            <xs:sequence>
              <xs:element ref="Country_Iso_Code" minOccurs="0"/>
              <xs:element ref="Responsible_IM_Code" minOccurs="0"/>
              <xs:element ref="Subsidiary_Location_Code"/>
              <xs:element ref="Location_Code"/>
              <xs:element ref="Subsidiary_Type_Code"/>
              <xs:element ref="Subsidiary_Location_Name"/>
              <xs:element ref="Start_Validity"/>
              <xs:element ref="End_Validity" minOccurs="0"/>
              <xs:element ref="AllocationCompany"/>
              <xs:element ref="Latitude" minOccurs="0"/>
              <xs:element ref="Longitude" minOccurs="0"/>
              <xs:element ref="Free_Text" minOccurs="0"/>
              <xs:element ref="Active_Flag"/>
              <xs:element ref="Add_Date"/>
```

```
            <xs:element ref="Modified_Date" minOccurs="0"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>

<xs:element name="Country_Iso_Code" type="CountryIdentIso">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Subsidiary_Location_Code" type="String1-10">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Subsidiary_Location_Name" type="String-255">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Subsidiary_Type_Code" type="String-2">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
```

```
<xs:element name="Location_Code" type="String1-5">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Responsible_IM_Code" type="CompanyCode" nillable="true">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="AllocationCompany" type="CompanyCode">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Longitude" nillable="true" type="Decimal9-6">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Latitude" nillable="true" type="Decimal8-6">
  <xs:annotation>
    <xs:documentation>
    </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Free_Text" nillable="true" type="String-255">
  <xs:annotation>
```

```
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Active_Flag" type="xs:boolean">
    <xs:annotation>
      <xs:documentation>
      </xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Start_Validity" type="Date">
    <xs:annotation>
      <xs:documentation></xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="End_Validity" type="Date">
    <xs:annotation>
      <xs:documentation></xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Add_Date" type="Date">
    <xs:annotation>
      <xs:documentation></xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="Modified_Date" type="Date">
    <xs:annotation>
      <xs:documentation></xs:documentation>
    </xs:annotation>
  </xs:element>
  <!-- Data types-->
  <xs:simpleType name="String-255">
```

```
    <xs:restriction base="xs:string">
      <xs:maxLength value="255"/>
      <xs:minLength value="0"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="String1-5">
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
      <xs:maxLength value="5"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="String-2">
    <xs:restriction base="xs:string">
      <xs:maxLength value="2"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="String1-10">
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
      <xs:maxLength value="10" fixed="false"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="CountryIdentIso">
    <xs:annotation>
      <xs:documentation>Iso 3166-1 alpha code (2 positions)
      </xs:documentation>
    </xs:annotation>
    <xs:restriction base="xs:string">
      <xs:minLength value="2"/>
```

```
      <xs:maxLength value="2"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="CompanyCode">
    <xs:annotation>
      <xs:documentation>Identifies the RU, IM or other company involved in
        the Rail Transport Chain
      </xs:documentation>
    </xs:annotation>
    <xs:restriction base="String4-4"/>
  </xs:simpleType>

  <xs:simpleType name="String2-2">
    <xs:restriction base="xs:string">
      <xs:minLength value="2"/>
      <xs:maxLength value="2"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="String4-4">
    <xs:restriction base="xs:string">
      <xs:minLength value="4"/>
      <xs:maxLength value="4"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:simpleType name="Decimal9-6">
    <xs:restriction base="xs:decimal">
      <xs:totalDigits value="15"/>
      <xs:fractionDigits value="6"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="Decimal8-6">
```

```
    <xs:restriction base="xs:decimal">
      <xs:totalDigits value="14"/>
      <xs:fractionDigits value="6"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:complexType name="SubsidiaryTypeCode">
    <xs:simpleContent>
      <xs:extension base="String2-2"/>
    </xs:simpleContent>
  </xs:complexType>
  <xs:simpleType name="Date">
    <xs:restriction base="xs:string">
      <xs:pattern value="\d{4}[-](0[1-9]|1[012])[-](0[1-9]|[12][0-9]|3[01])"/>
    </xs:restriction>
  </xs:simpleType>

</xs:schema>
```