

2025

# **RIS TOPOLOGY USER MANUAL**

Austria Campus 3 Jakov-Lind-Straße 5 1020 Vienna, Austria

Phone: +43 1 907 62 72 00 E-Mail: <u>mailbox@rne.eu</u>





Version	Description	Who
v.01	Initial draft	C.B.
v.02	Smaller adaptions, extension to CIP specific functionalities	C.B.
v.04	Introduction of enhancements CR04, CR09, CR12	C.B.

## Contents

1	Intro	duction3
2	Syst	em Access
	2.1	Internet Access
	2.2	Landing Page for Public Users4
3	Regi	stration / Login / Logout and Change Password4
	3.1	Public Registration4
	3.2	Precursor4
	3.3	Login4
	3.4	Logout5
	3.5	Change Password6
4	RIS r	navigation logic6
5	Noti	fication panel7
6	Торо	ology7
	6.1	Interactive Map8
	6.1.1	General map functionalities9
	6.1.2	2 Display options11
	6.1.3	3 Search in Map15
	6.1.4	Date19
	6.1.5	5 Map Tools
	6.1.6	Properties23
	6.2	Map Management23



	6.2.1	Segments	.23
	6.2.2	Tracks	.25
	6.2.3	Sections	.27
	6.2.4	Primary locations	.30
	6.2.5	Subsidiary locations	.32
	6.2.6	Topology events	.34
6.:	3	RailML Interface	.35
6.4	4	RINF Interface	.35

## **1** Introduction

This document is intended to describe in detail the functionalities of RIS that are made available for the data management of the infrastructure topology that is managed in RIS application.

It is divided into 3 main chapters, in each of which the functionalities of the Geoeditor/BigData systems to be replaced, the data management function of CIP and the data management function of RFP are described.

The first version contains the main chapter on the GeoEditor functions.

The other chapters will follow successively in the next document's versions.

## 2 System Access

### 2.1 Internet Access

The RIS system is accessible to public and undergoes an authentication process.

The respective URLs for the different environments are:

- Staging: for test purposes
  - → <u>https://ris-stage.rne.eu/</u>
- Production: for all purposes in production environment
  - → <u>https://ris-online.rne.eu/</u>



## 2.2 Landing Page for Public Users

A dedicated landing page has been introduced for users accessing RIS without valid session credentials. This page serves as an entry point for:

- Triggering the Azure login flow
- Navigating to a public registration form for new user accounts

After login, the standard RIS application is loaded. If the user is already authenticated, the landing page is bypassed.

## 3 Registration / 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.

### 3.1 Public Registration

- Clicking Register on the landing page redirects to a public registration form.
- Upon submission, a request is stored for administrator's approval.
- Users are notified via email once approved or rejected.
- Administrators handle approvals in a new grid interface under Settings > User Management.

#### 3.2 Precursor

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

To achieve please contact RNE using the following option

- Email: <xxxxxxxxxxxxxxxx<>
- Tel: <xxxxxxxxxxxxxxxxxx<>

### 3.3 Login

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 have to enter your account credentials

## 3.4 Logout

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

	The and Chains	😤 Topology 🔮 Corridors Information 💋 RFP Information 🗇 RIS Information 🙆 CRD 🕲 Settings	
Interactive Map Map Management			
Layers	Search 🖾 Q. 2024-03-14 🖻	(0. 이 가운 가운 가 뜻 Route Planning ICM Lines	I Properties
Base Topology	and the day	17X9 an or or or do	T With the start of the
O 118	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	the the start by	the part
O TCR	Tell CK	10-00 A PO Martin 6	and the second
⊖ cis	PALAD	Had 190 ag 9 9	LA ATTONP, PISTOR
O PCS	44466 7	AD- Adama and	DEPERTING SU
O REP	d to be by	P Q Q A A A A A A A A A A A A A A A A A	and the cost
O CP	TPLYT	torial a bound a la a construction a	a later a later a
Display On The Map	and Fashed	Sha he start int	The second
Corridor Types			og tertig apti
NO TO	A DESCRIPTION	To the store of th	1 9 My Conge
	. TO POLL		Hard & Start &
No T	of the dest	0-0	LON MORALIST

Clicking on your user you get an option to logout.

≔ Propert	Logout Version: 1.0.023965650e777500e47111ebea2e72a804d75386- 910-08.03.2024-SNAP SHOT
arpojy (arbojy ktoj	Narodny pork Nike Satry

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.

## 3.5 Change Password

Can be chosen when you log in with your user account

[evolit] Kennwort eingeben	
Cennwort vergessen	nmelden
We make IT yours.	

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

## 4 RIS navigation logic

The RIS application is structured, clear and menu-driven and also contains the CRD functionality. Which functions are visible via the respective menu items depends on the permissions of the user role. For the sake of simplicity, the screenshots resulting from the assignment of all rights are shown below.

The menu is structured in the following functional groups:

- Topology: Contains all functionalities that are provided to manage and handle the topological network
- Corridors Information: contains all specific functionalities of railfreight corridors that are not topology-related
- ETC Information: contains all specific functionalities of *European Train Corridors* that are not topology-related
- RFP Information: contains all specific functionalities of rail facility portal that are not topology-related
- CRD: contains the CRD functionality (as described in document "RIS Manual CRD\_v2")



Settings: contains RIS-Specific settings that are not topology-related, especially the approval of user registrations.

## 5 Notification panel

Notification panel is displayed whenever an action is performed in RIS. Of the action is successful, the notification panel is green, if the input in the user interface is not sufficient to carry out the action correctly the notification panel is orange; if the action is not successful or any error occurs during its execution, the notification panel is red.

e.g.

gments	SECTIONS (41014)		Segments	EDIT SEGMENT	
icks	Select From Location	From Country	Tracks From Col	Segment Detail	
ctions			SECTORS	I scatture Down	
mary Locations	D Ling HM (in Lt) AT 1079	Austria AT	Primary Locations	Abzww Knoten Rohr Ost (in R	oh) - AT91054
bsidiary Locations	Linz Hor (in L2) - Al 1073	Austria - Al	Subsidiary Locations		
pology Events	Promachon Br GR760	Greece - GR	OSE - Topology Events	Distance IM (m)	Distance Linear (m) 307
	Vinkovci - HR71160	Croatia - HR	H2-Infr	e Stud Valida 1	Entlights
	TREVISO CENTRALE - IT2712	Italy - IT	FS - 0	Start Validity must be filled	YYYY-MM-DD
	Szabelnia - PL7355	Poland - PL	PKP PI	Gauging	Intermodal Freight Cr
	Brücke - DE11748	Germany - DE	D8 Infr		
	Bremen Hbf - DE11627	Germany - DE	DB Infr	Gradient Dir 1	Gradient Dir 2
	Wilhelmshaven Nord DB-	Germany - DE	DB Infr	Maximum Speed	Maximum Train Leng
	Grenze - DE21151 Odb Brno-Židenice z -	Court Downline of	0.000		
	CZ33395	Czech Republic - Cz	8202 -	Number of Tracks	Track Gauge
	CZ33395	Czech Republic - CZ	SZCZ -	Usage	
	0 selected estities	t Proportion			
				RINF Properties	
				National Line StartBrotton	
				Custom Properties	
				Property	

## 6 Topology

This is the central part of the RIS application. It includes the presentation of the map display of the topological network, the data maintenance of the network via map tools and the data management of the network entities.

A general overview of the topological logic, the dependencies of entities to each other (macroand mesoscopic layer) and also the impact of introduction of tracks and also time dimensions to entities (by means of validity periods) is summarised in the document "Topological Model and Data Model RIS – Validity Periods".



## 6.1 Interactive Map

An important representation in RIS is the interactive map. This shows the topological model in various forms, which can be set using the selection on the left-hand side.



The interactive map is structured as follows:

- Central part: shows the map (derivative of open street map as background) with the topological entities selected, respectively.
- Display options: Shows different display options or possibilities to show or hide different entities.
- Search: searches for names of entities in the topological network
- Date: shows the date on which the network is to be displayed. E.g. a date in the past shows the network as it existed in the past; a date in the future, showing the network as it is currently stored in the system for the future. This allows for future-planned entities to be displayed as well.
- Map Tools Centrally at the top in the middle:
  - +/-: Zoom in / out in the map
  - 🛯 🧎 🍾 🖓 🥻 🏥 : Map tools, described below
- Properties: shows properties of a selected entity



#### 6.1.1 General map functionalities

#### Grouping:

Dependent on the zoom level, locations are too narrow are grouped in one icon showing the number of elements grouped together:

℮ Display Options	Search	Цα	2024-03-18		Search	🛱 Q 2024-03-18 🖬
Layers	No. durg or logo	0	to	Layers	XC	and in
Base Topology		Geoenfest: Userburg	<7	Base Topology		
	(Onener)	Hatter chen an conten	~0	⊖ TIS	0	and and the second seco
0 700	in the second second	1 >	9	O TCR		Marenentura
OTCR	De Long	1 O	Taufkirchen	⊖ cis	() ST	11 Marcentary
⊖ cis	1 17	1	ingra (With	O PCS		
O PCS		11-9	0	O RFP	9	
O RFP	Service Se	ALC .	Harg in Oberb		Anterest	Costhader
		Na	Que C	Display On The Map		and the Open
Display On The Map	Diede tan Ammirisar Watter		_0_	Corridor Types		Transmight Solo
Corridor Types	00		7	Andrease American American	Russesser Factors with	
JAS MARKEN MARK		June toppont	24	Charlinger (Dertinger		Grunnelid

When you hover the mouse over the network, entities are automatically highlighted and their names displayed.



When you select an entity on the map, it is highlighted, and its properties are shown on the right side panel.

In the following a segment in the network was selected





The edit Icon leads directly to the detail data dialogue of the segment.



Another example is the selection of a location in the map:

The data of the primary location, however, must be performed in CRD-part due to regulatory restrictions.

Above the shown properties the user can select between entities adjacent to that selected.





#### 6.1.2 Display options

The user can select the network that should be presented on the map. Base Topology shows the network of segments connected to each other and locations (managed by selection in "display on the map"). The base topology is the underlying network for all layers and therefore the same for all layers.

➢ Display Options	
Layers	<u>^</u>
Base Topology	•
Filters	<u>^</u>
Locations	
All Location Types	
Primary	
Subsidiary	
✓ Nodes	
Terminals	
Facilities	
Segments display	
As Polylines	
Countries & Companies	
Country	
Company	
	-

Furthermore, the user can select a specific layer, whereby the view on the map then changes and refers exclusively to the layer.

New: Layer *RFC new alignment*  $\rightarrow$  This layer comprises the European Transport Corridors



In the second group *Filters*, the presentation on the map can be specified: For example, the display of subsidiary locations can be switched on and off, or additional service facilities can be displayed.

Furthermore, the display of the base topology as polylines can be selected here. This means that the rail connections are displayed along the actual course of the rail and not as straight connecting lines.

Finally, the Country and Company fields can be used to restrict the display to certain countries or entities that are assigned to the selected company (responsible IM).



The third part relates to the presentation of *Corridor Properties* (in case of layer *CIP* or *RFC new alignment*) or Facility types (in case of layer *RFP*).

#### In case of corridor layers CIP or RFP new alignment:

By default, each corridor has a different color along the entire course of the corridor:





However, this corridor can also be displayed in different colors depending on the IM responsible. This can be achieved by selecting respective *Corridor Properties* (in this case corridor coloured for different responsible infrastructure managers):



Or here the same corridor but with additional representation of ETCS projects along the corridor route





#### In case of facility layer:

If the user selects the RFP layer, he can select various preset settings and filters for the service facilities, similar to corridors. In particular, specific types of service facilities can be displayed to give the user a better overview.





Advanced filters allow the user to make further restrictions specifically for their purposes

#### 6.1.3 Search in Map

The search field next to the display options can be used to search for entities in the map display. The lens performs a search in the entire data set of entities, thus, independent on current shown map partition.

The rectangle, however, performs a search on entities displayed currently in the map.

Matching parts of names are searched for, and the result is displayed.

The result depends on which display option has been selected.

If the base topology was selected, all matches that were also selected to display on the map are searched for. E.g. for segments and e.g. terminals, if terminals were selected as the display option.



Display Options		pasing 🛛 🔍 2025-04-26	凹	
Layers		Search Results Q	and the second s	1
Base Topology	-	O DE17309: München-Pasing Ost		- 10
Filters		O DE17307: München-Pasing Gbf		-
Locations		DE17308: München-Pasing Nord		
All Location Types		O DE17305: München-Pasing		HEY
Primary		O DE17313: München-Pasing West	100000	
Subsidiary		O DE17311: München-Pasing Weiche 347		~
Terminals		O DE17312: München-Pasing Weiche 352		~
Facilities		O DE17306: Milechen Pasine Bhf		1
Segments display		OCTOR Marker Press		Inter
As Polylines		DE17305. München Landsberger Straße		THE.
Countries & Companies		. DE17290: München-Laim Rbf		
		DE17309: München-Pasing Ost		
		1 DE17309: München-Pasing Ost		-
		DE17307: München-Pasing Gbf		R In
		DE17224: München Hirschgarten DE17305: München Pasing		
		DE 17005 Mandret Barles		
		DE17305. München-Westkreuz		
		DE17305: München-Pasing		
		DE18401: Planegg Awanst		
		DE17289: München-Laim Pbf		and the second
		DE 17305. Munchen-Pasing		
		DE17308: Munchen-Pasing Ost DE17308: München-Pasing Nord		
		. DE17308: München-Pasing Nord		
		DE17305: München-Pasing	A Company and the second	
		Close		
		abor and		
		0		3

The first group in the search result are the found primary locations, the second group are the found segments.

The same search, with selected option to show also facilities which are marked light green in the search results:



Selecting an entity in the result list, automatically zoom and center to that entity and shows it highlighted:











If a layer, e.g. a corridor, has been selected, only the corresponding entities along the corridor are searched for (exception: if service facilities are also selected to be shown, also corresponding facilities are searched independent on the selected corridor).





#### 6.1.4 Date

The date field is set default to today and defines the date for which the network shall be shown on the map. As described in the document "Topological Model and Data Model RIS – Validity Periods" all entities have a validity period in which the current data of the entity are valid. Outside a given validity period the entity might exist with different set of data or even does not exist. E.g. today a station might not exist but maybe by 1<sup>st</sup> January 2025. Thus, this entity is not found if the date is set to 2024, but it is found if the date is set to a date in 2025.

By means of this field the user can do a time travel through the topology in the past and also in the future.

Example: the primary location "Kledering" is existing in the system as valid from 1.1.2013. Before, this location is not existing in the system.

Left, date is set to 1<sup>st</sup> Jan 2009. Only Kledering as service facility is available in the system, but not as primary location. Later, today, Kledering is already created as primary location and connected to other primary locations with segments.





#### 6.1.5 Map Tools

#### 6.1.5.1 Tools for base topology

The user can manipulate segments by means of this tool. These are

<u>Create segment:</u> a user can select the tool and 2 locations he wants to have connected with a segment. The segment will be created. The validity period of that segment will start with the date of creation and has no end date.

<u>Split segment:</u> a user can split a segment. The segment to be split must be selected and a location. The end validity date of the existing segment will be set to yesterday and 2 new segments starting with today will be created including the selected location.



<u>Combine segments:</u> a user can combine two existing segments into a single new one. The 2 end validity date of the 2 selected (adjacent) segments will be set to yesterday and a single new segment starting with today will be created between start point of first and end point of second segment

<u>Adjust polyline:</u> a user can select a segment, the waypoints that build the polylines are shown. These waypoints can be moved, or additional waypoints can be added. This tool supports the user to create accurate polylines that shows the real course of the tracks.

<u>Refine polyline:</u> a user can select a segment and a polyline will be automatically calculated based on real railway map data. In most cases this returns very good results and is much faster than doing it manually. It is possible, however, that the underlying provided data are not returning useful results. In this case the polyline should be created manually as described above.



Example: Segment without polyline and after creating polyline by means of refine function:

### 6.1.5.2 Tools for layers

The user can manipulate sections by means of this tool. The changes of sections are done within a selected layer and do not have impacts on other layers. The functions are:

<u>Create Section:</u> if a user selects this tool the map switches to the display of segments. The user can select adjacent segments that the user wants to group into a new section:





The red circle represents the starting point of the section and the green circle the current end point. The section can be extended by adding a further section next to the green circle.

The validity period of the segment is defined as the latest start date of all segments in the section and earliest end date of the segment in the section.

<u>Edit Section:</u> a user can select a section and add or deselect a group of adjacent segments of the section. By means of this tool a section can be shortened or extended to either side.

<u>Combine Section:</u> a user can select 2 adjacent sections and can perform this function. The end date of the 2 sections will be set to yesterday and one new section combining the 2 selected sections will be created with current start date.

<u>Split Section</u>: a user can select a section, define a location the section comprises and split the section into 2 new ones. The original section's end date is set to yesterday and the start date of the 2 new created sections is set to current date.

<u>Copy Section into different layer</u>: a user can select a section and chose a layer to which the section shall be copied. A identical section is then created in the selected layer.

#### Attention:

It is only allowed to create a section, combine section or edit a section if the following properties of the segments that shall be grouped in the section are the same:

- Segment Type
- Line Category
- Traction Power
- Signalling Class B



- Intermodal Freight Code
- Gauging
- Track Gauge
- Maximum Train length
- Maximum speed
- Usage
- Country
- Responsible IM

#### 6.1.6 Properties

This panel is already described in General map functionalities.

## 6.2 Map Management

#### 6.2.1 Segments

#### 6.2.1.1 Overview of segments

This overview shows the segments that are managed in the RIS application. The overview also contains the segments that are generated via map tools.

	Image: Control of the second											
Interactive Map Management												
Tendray > Mag Management > Segments												
Segments	SEGMENTS (56760)								ப் Import	Columns		
Tracks	Select From Location	From Company	From Country	To Location	To Company	To Country	Linear Distance (m)	Polyline Distance [m]	Distance IM [m]	Actions		
Sections	0						= *	= *	= *			
Primary Locations Subsidiary Locations	Abzww Knoten Rohr Ost (in Roh) AT91054	OBB-Holding AG - 0081	Austria - AT	Groß Sieming (in Roh) - AT1039	OBB-Holding AG - 0081	Austria - AT	307	307		0		
Topology Events	Knoten Rohr (in Roh) - AT5683	ÖBB-Holding AG - 0081	Austria - AT	Loosdorf - AT1040	ÖBB-Holding AG - 0081	Austria - AT	3212	3323		0		
	Sbl Los 2 - AT90501	ÖBB-Holding AG - 0081	Austria - AT	Melk - AT1041	ÖBB-Holding AG - 0081	Austna - AT	780	781		0		
	Sbl Roh 8 - AT90722	ÖBB-Holding AG - 0081	Austria - AT	Pöchlam - AT1042	OBB-Holding AG - 0081	Austria - AT	2776	2785		0		
	Sbl Poe 11 - AT90654	OBB-Holding AG - 0081	Austria - AT	Krummnußbaum - AT1043	ÖBB-Holding AG - 0081	Austria - AT	1756	1770		0		
	Sbl Poe 3 - AT90652	ÓBB-Holding AG - 0081	Austria - AT	Ybbs a.d.Donau - AT1045	OBB-Holding AG - 0081	Austria - AT	2631	2642		0 C		
	Sbl Kar 15 - AT90396	OBB-Holding AG - 0081	Austria - AT	Amstetten (in Ams) - AT1045	OBB-Holding AG - 0081	Austria - AT	4309	4309		Ø O		
	Sbl Ams 12 - AT90032	OBB-Holding AG - 0081	Austria - AT	Mauer-Ohling - AT1053	OBB-Holding AG - 0081	Austria - AT	952	952		Ø ()		
	Sbl Ams 3 - AT90030	OBB-Holding AG - 0081	Austria - AT	Aschbach - AT1054	OBB-Holding AG - 0081	Austria - AT	2789	2790		0		
	Abzww St. Peter-Seitenstetten Ost Sp) - AT91010	(in OBB-Holding AG - 0081	Austria - AT	St.Peter-Seitenstetten (in Sp - AT1056	OBB-Holding AG - 0081	Austria - AT	779		775	Ø		
	0 selected entities 🗌 Export Polyli	ne 🗌 Export Propertie	S (a) Export to CSV	Export JSON				hems per page: 10	1 – 10 of 56760	$\leftrightarrow$ >1		

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

🛃 Import

Segments may be imported via Json or csv file. The structure is defined in the same way as the export file formats

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

- Export to CSV selected segments can be exported to a csv-file
- Export JSON selected segments can be exported to a json-file
- Export Polyline polylines of segments are additionally exported to respective file format
- Export Properties custom properties of segments are additionally exported to respective file format
- Edit: Opens the detail dialogue by means of which data can be edited

Set inactive: An active segment can be set inactive by means of setting the end-date of the segment 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.

### 6.2.1.2 Segment details

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

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

The properties of a segment are aggregated data of track properties of the segment that are assigned to this segment, and, thus, cannot be changed.



	-		S Topology	Corridors Information	RFP Information	⊜ CRD ⊚ Setting	25		
Interactive Map Map Management						-	-		
Topology > Map Management > Edit Seg	ment								
Segments Tracks Sections	EDIT SEGMENT Segment Detail								
Primary Locations	Location From Knoten Rohr (in Roh) - AT5683		Location To Loosdorf - AT1040						
Subsidiary Locations Topology Events	Chiteres W (e)	Distance Liver' (b) 3212 Lad Mathy Where the set of	Datasce Polyline (in) 3323 Line Celegory  Signaling Class B 						
	Number of Tracks  Usage 	Trick Gauge	Traction Power						
	RINF Properties		Length of section of line			in frasti 	nucture Manager		
	Custom Properties							I	Add new
	Property		Value						Actions
				No Custom Proper	ties found				
	Save Cancel Reset								

#### If properties of a segment shall be changed the change must be performed on track level.

The RINF properties are imported properties from RINF database, that were not previously managed in the legacy applications of RIS.

The logic of how properties of the tracks are aggregated at segment level is described in the document RINF - CIP Parameters Alignment v2.

In this dialogue a user can edit custom properties. This is performed by adding a property and giving the property a value.

#### 6.2.2 Tracks

#### 6.2.2.1 Overview of tracks

All tracks that are managed in RIS are displayed in the overview. Both tracks that are assigned to a segment and tracks that are assigned to a Subsidiary Location and therefore Primary Location are displayed.



				옷 Topology 옷 Corridors Informa	tion di RFP information	🖨 CRD 🛞 Settings			ą	EN & doctopertaxion
Interactive Map Management										0
Taggiggy > Mag.Management > Tracks										
Segments										
Tracks	TRACKS (44435)									E Columns
Sections	Track liane	Track Code	Start Valdity	End Weidby	Owred by Segnert	Owned by Subsidiery Location	Linked to Primary Location	Created at	Updated at	Actions
Primary Locations		3	2018.06.12	•		3		2018 11 27 80-00-60	2010 11 27 02 05 05 00	
Subsidiary Locations		3	2016-02-12					2010-11-27 00.00100	2010-11-27 00.04-30	
Topology Events		1	2018-05-12			1		2018-11-27 00.00.00	2016-11-27 00:00:00	4.0
		10	2018-09-12			10		2018-11-27 00:00:00	2018-01-27 00 00-00	
		0	2018-02-12					2018-11-27 00:00:00	2010-11-27 0000-00	<i>*</i> •
	•	5	2018-09-12					2018-11-27 00:00:00	2016-11-27 00:00:00	<i>*</i> •
		3a	2018-09-12			3a		2018-11-27 00:00:00	2010-11-27 00:00:00	<i>•</i> •
	•	1a	2018-05-12			1a		2018-11-27 00:00:00	2018-11-27 00:00:00	Ø ()
	-	1	2018-05-12			1		2018-11-27 00:00:00	2018-11-27 00:00:00	Ø (U
	•	5108	2018-05-12			5108		2018-11-27 00:00:00	2018-11-27 00:00:00	Ø ()
		2	2018-09-12			2		2018-11-27 00:00:00	2018-11-27 00.00:00	00
		40	2018-09-12			40		2018-11-27 00.00:00	2018-11-27 00.00.00	Ø (U
		4a	2018-09-12			4a		2018-11-27 00.00.00	2018-11-27 00.00.00	0
		4	2018-09-12			4		2018-11-27 00.00.00	2018-11-27 00.00.00	0
		6	2018-09-12			6		2018-11-27 00.00:00	2018-11-27 00.00.00	00
		8	2018-09-12			8		2018-11-27 00.00:00	2018-11-27 00.00.00	0 C
		10	2018-09-12			10		2018-11-27 00.00:00	2018-11-27 00.00.00	Ø (C)
		12	2018-09-12			12		2018-11-27 00.00:00	2018-11-27 00.00.00	ø ©
		14	2018 09-12			14		2018-11-27 00.00:00	2018-11-27 00.00.00	0
		16a	2018 09-12			· · · 16a		2018-11-27 00:00:00	2018-11-27 00:00:00	Ø ©
		15	2018 09-12			16		2018-11-27 00:00:00	2018-11-27 00:00:00	Ø (6)
		18	2018 09-12			18		2018-11-27 00:00:00	2018-11-27 00:00:00	10
									Rems per page: 10 - 100 of 4443	< <b>&gt; &gt;</b>

#### 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

I 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

Set inactive: An active track can be set inactive by means of setting the end-date of the track 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.

#### 6.2.2.2 Track details

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



Depending on the privilege, the user can change the detailed data of the track. Data like RINF Track ID refers to corresponding RINF data and indicates that this track or data of this track were transferred from RINF to RIS.

In the middle section, the user can link the track to tracks of the from-location to tracks of the to-location.

The same principle applies to tracks from Primary Locations. Here, the user can assign the track to tracks from adjacent segments in the same way.

			로 Topology Contiden Internation gl RTF Into	nation 8 CRD @ Settings	Qer.	A released
Headly Nay Management						
THEOR > STRUCTURES > BOLTON						
Septem	LERT TRACK					
Tacia	Darb Date:					
Sectors	Testiere		Testion*		RM Text of	
Senatorization			68		NEWTERNERGISTECKERCO	
Topongy Lama	2023-03-19	C VITAND	e			
	Cone in Sectors Schedigenbesch - NL319 V/H Hedel - NL1104					
	Owner in Summer Leaster		Underto America Gozante			
	Annex Trapport for design			Amonto Transmissi for Lenors Search		
	801					
	701 702e					
	762o 763e					
	703p 704a					
	There are no local a section on the making segment's locations descences therein the theory and			and the Target and Target and Target and		
	Search			Search		
	Line Properties					
	(mpm)	* 1485	* DD 1.6W			
	WRITER'S DISTRICT DI	4 0002008912009076				
	PTC 80.418					
	120	NUMBER OF THE LOOP				
	And the second sec					
	ATE Find perversion		* Passencer 8. Freight		•	
	Surface Responders (1)					
	careas 0					
			C William C. A. Structure C. March			
	DeDphelitpe		CCD TBI Twin Detection	EC9 TB velt fee		
	RTOR-OWNERS WIRK		As proved	NA TIO NO TOO DATE		
	ETCS L1			1990		
	n sojn ab	C 410 C 410	P+1092			
		Contraction and the	to a second			
	San Garost No.					

This creates the topological network at track level.

#### 6.2.3 Sections

#### 6.2.3.1 Overview of Sections

All sections that are managed in RIS are displayed in the overview.

This means that sections that actually have the same segments grouped together can occur several times. The only difference is that they belong to different layers. The filtering for a specific layer can be done in the overview.



	RNERIS 🖸 🚟	l ny nan-Tanàn				옷 Topology 🔒 Co	rridors Information	al RFP Information	CRD	③ Settings				Quen al	Sharty receipt
	eractive Map Management														
end <th>clogy &gt; Map Management &gt; 54</th> <th>ections</th> <th></th>	clogy > Map Management > 54	ections													
Not     Not <th>egments</th> <th>SECTIONS (4102</th> <th>0)</th> <th></th> <th>ek import</th> <th>E Columns</th>	egments	SECTIONS (4102	0)											ek import	E Columns
ethem         -        -         -         -	acks	Select From Costilion	FremC	Colintry	From Company	Fellocation	To Country	To Company	aver5	Distance Linear Inti-	Distance Politise (ni)	Distance Segments Linearity	Distance (Milm)	Status	Actions
were loaded	tions									- *	- *	= *	= 7		
usary Locases                in (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	ary Locations			8. 222		Abowy Traun Nord (In T) -									
neg femt         neg maximum 1: 0000         neg maximum 1: 00000         neg maximum 1: 0000 <t< td=""><td>idiary Locations</td><td>Line Hol (n</td><td>L2) - A71073 Aust</td><td>ina - AT</td><td>OBE-Holding AG - 0081</td><td>AT90839</td><td>Austra - AT</td><td>OBB-Holding AG - 0081</td><td>TCR</td><td>8077</td><td>8522</td><td>8218</td><td></td><td>Active</td><td>0</td></t<>	idiary Locations	Line Hol (n	L2) - A71073 Aust	ina - AT	OBE-Holding AG - 0081	AT90839	Austra - AT	OBB-Holding AG - 0081	TCR	8077	8522	8218		Active	0
International (Control - Field (Co	ogy Events	Promachon	Dr GR760 Gree	ece - GR	OGE - 0073	Thessaloniki Port - GR421	Greece - GR	OSE - 0073	TCR	90118	125010	116188		Active	0
Image: Section 1. Section 2. Sectio		Vinkovci - H	R71160 Cros	atia - HR	HŽ-Infrastruktura - 0078	Vukovar - HR71452	Croatia - HR	H2-Infrastruktura - 0078	TCR	15987	18410	17715		Active	10
solutions PU/350       Ward PL       WPP PLK SA-000       PMP PLK SA		TREVISO C	CENTRALE - Italy	- IT	FS - 0053	PM VAT - IT3032	italy - (T	FS - 0083	TCR	91442	110094	108064		Activo	0
<ul> <li>             hitsch= 0511741             demany: 05             demany: 05</li></ul>		Szabelnia -	PL7355 Pola	nd - PL	PKP PLK S.A 0051	Mysłowice Brzezinka - PL7367	Poland - PL	PKP PLK S.A 0051	TOR	7527		7845		Active	00
Bernes Hot       DS Binlago Advoices       DS Binlago Advoices       DS Binlago Advoices       DS Binlago Advoices       TOTAL       TOTAL       TOTAL       Addee       D         D       Wither Hot       DS Binlago Advoices       DS Binlago Advoices       DS Binlago Advoices       DS Binlago Advoices       TOTAL       TOTAL       TOTAL       TOTAL       TOTAL       Addee       D         D       DS Binlago Advoices       TOTAL		Brücke - DE	E11748 Gen	many - DE	DB InfraGO AG - 0080	Bremen Hbf - DE11627	Germany - DE	DB InfraGO AG - 0080	TCR	219136		265476		Active	Ø 0
NMB         MMB         MMB <td></td> <td>D Bremen Hb</td> <td>r - DE11627 Gen</td> <td>many - DE</td> <td>DB InfraGO AG - 0060</td> <td>Brememaven Seehafen - DE11669</td> <td>Germany - DE</td> <td>DB InfraGO AG - 0080</td> <td>TCR</td> <td>57198</td> <td></td> <td>71370</td> <td></td> <td>Active</td> <td>00</td>		D Bremen Hb	r - DE11627 Gen	many - DE	DB InfraGO AG - 0060	Brememaven Seehafen - DE11669	Germany - DE	DB InfraGO AG - 0080	TCR	57198		71370		Active	00
0.00000-000000000000000000000000000000		Wineimsha Grenze - Di	E21151 Gem	nany - DE	DB InfraGO AG - 0080	Bremen Hbf - DE11627	Germany - DE	DB InfraGO AG - 0080	TCR	71062		105386		Active	0
000000000000000000000000000000000000		Odb Brno-2 CZ33395	Edenice z - Czec	ch Republic - CZ	SZCZ - 0054	Kolín - C253414	Czech Republic - CZ	SZCZ - 0054	TCR	137606		171590		Active	0
Permitter       Austra AT       0d6 1stamp AG. 0001 Heggenhaum. 101502 Haggen Hau.       MAV. 0055       TGR       2001       22700       Autor       MAV. 0055       TGR       2001       22700       Autor       Autor </td <td></td> <td>CZ33395</td> <td>Éldenice z - Czec</td> <td>th Republic - CZ</td> <td>SZCZ - 0054</td> <td>Česká Třebová - CZ52913</td> <td>Czech Republic - CZ</td> <td>SZCZ - 0054</td> <td>TCR</td> <td>78570</td> <td>83457</td> <td>77860</td> <td></td> <td>Active</td> <td>00</td>		CZ33395	Éldenice z - Czec	th Republic - CZ	SZCZ - 0054	Česká Třebová - CZ52913	Czech Republic - CZ	SZCZ - 0054	TCR	78570	83457	77860		Active	00
Decks         Selection         Se		Pamdorf - /	AT2976 Aust	iria - AT	ÖBB-Holding AG - 0081	Hegyeshalom - HU1362	Hungary - HU	MÁV - 0055	TCR	22081		22790		Active	0
International Production - FULSDB3		Divača - Si4	44200 Slow	enia - Si	SŽ - Infrastruktura, d.o.o 0079	BIVIO D'AURISINA - ITS313	italy - IT	FS - 0083	TCR	25376		27867		Active	0
- Filese - HO19802       Romanna - RO       OFR 540053       Ram Smemina - ROSM724       Romanna - ROSM724       Romanna - ROS       OFR 540053       TOR       107799       103391       Active       <		Wroclaw Br	rochów - PL5833 Pola	nd - PL	PKP PLK S.A 0051	Ústí nad Orlicí - CZ03863	Czech Republic - CZ	SZCZ - 0054	TCR	131479		158288		Activo	0
acLLABIATAITH572       BayIT       FS0063       TCR       161480       196424       197407       Active       Active         acLLABIATAITH572       BayIT       FS0063       TCR       5456       6073       7035       Active		Eliasi - RO	10902 Rom	iania - RO	CFR SA - 0053	Ram Simenia - R036724	Romania - RO	CFR SA - 0053	TCR	147789		183381		Active	00
BELL/NISTA         FIS         5005         TARANTO         FIS         6005         TOR         5485         6073         7005         Anthe         \$\$           L0009500r         5K13716         Stowara         SK         287         6005         TOR         55645         6073         7005         Anthe         \$\$		BELLAVIST	A - IT11512 Italy	- IT	FS - 0083	PAOLA - IT11739	italy - IT	FS - 0083	TCR	161486	196424	187467		Active	0
Leopotov - 5K19716 Sovaka - 5K ŽBR - 0006 PALTOV - 5K17725 Sovaka - 5K ŽBR - 0006 TOR 50546 92200 A-the P		BELLAVIST	A - IT11512 Italy	- IT	FS - 0053	TARANTO - IT11465	Italy - IT	FS - 0063	TCR	5455	8073	7035		Active	00
		Leopoltov -	- SK13716 Slove	akia - SK	ŹSR - 0066	Púchov - BK17725	Slovakia - SK	ŽSR - 0056	TCR	85646		92230		Active	0
						1									

#### 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**

Sections may be imported via JSon file. The structure is defined in the same way as the export file format

I column selector is opened by means of which the shown columns can be

changed.

Export JSON selected segments can be exported to a json-file

Export Properties custom properties of sections are additionally exported to respective file format



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

Set inactive: An active section can be set inactive by means of setting the end-date of the section 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.

#### New Column: "Has Discrepancies"

Via Column Selector, a Boolean column indicates whether a section's validity period is misaligned with that of its assigned segments.

- If true, a discrepancy exists and is recorded in the internal section discrepancies table.
- This column supports sorting and filtering, allowing users to easily identify problematic sections.

#### 6.2.3.2 Section details

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

Depending on the privilege, the user can change the detailed data of the track. The section properties that ultimately originate from the aggregation of the track properties cannot be changed. These must be edited at track level.

Interactive Map Management					
Topology > Map Management > Edit Sec	tion				
Segments					
Tracks					
Sections	Section Details				
Primary Locations	Layers TCR				
Subsidiary Locations	Location From		Location To		
Topology Events	Linz Hot (in Lz) - A 11073		ADZWW Iraun Nord (In 1) - A 190839		
	2020-03-17 YYYYMM-0D		YYYY-MM-DD		
	Distance IM [m]		Linear Distance [m]		
			8077		
	Polyline Distance [m] 8522		Segments Linear Distance [m] 8218		
	Postion Descention				
	Line Chapter	Tractice Dower		Signation Class B	
	upon request	upon request		upon request	
	Intermodal Freight Code	Gauging		Gradient Dir 1	
	Gradient Dir 2	Track Gauge		Number of Tracks	
	upon request	upon request		upon request	
	Maximum Train Length upon request	Maximum Speed		Usage	
	Custom Properties				Add new
	Property	Value			Actions
	TCR_Affected_Border	Testvalue			Ø 🗊
	Save Cancel Reset				

In this dialogue a user can edit custom properties. This is performed by adding a property and giving the property a value.

#### Segment List and Discrepancy Highlighting



A new grid at the bottom has been added to the detail page, listing all segments associated with the section.

- Segments that do not align with the section's validity period are highlighted visually
- Each row links to the corresponding segment's detail view.
- The highlight allows users to quickly assess which segments are causing the inconsistency.

#### A new button is available: "Align Validity Period"

- This button triggers a system operation that aligns the section's start and end validity with the **maximum start** and **minimum end** dates among the associated segments.
- After alignment, the discrepancy flag is cleared.

#### 6.2.4 Primary locations

#### 6.2.4.1 Overview of Primary locations

Like the CRD area of the application, the primary locations are shown here in an overview.

Basically this part is used for the management of customer properties of primary locations.

			2. Topology 2. Corridors Informatio	on 🔬 RFP Information 📵 CRD 🕹 Setti	ngs		an 2 Changersteine
Interactive Map Map Management							
Topology > Map Management > Primary	Locations						
Segments Tracks	PRIMARY Select	LOCATIONS (37239)	Name	Name Asci	Country	Responsible IM	Import  Columns  Actions
Sections		1					
Subsidiary Locations		10150	Grimstorp	Grimstorp	Sweden - SE	TRAFIKVERKET - 0074	0
Topology Events		10151	Gripenberg	Gripenberg	Sweden - SE	TRAFIKVERKET - 0074	0
		1165	Grums	Grums	Sweden - SE	TRAFIKVERKET - 0074	Ø
		10152	Grundbro	Grundbro	Swoton - SE	TRAFIKVERKET - 0074	Ø
		10153	Grycksbo	Grycisbo	Sweden - SE	TRAFIKVERKET - 0074	Ø
		1178	Grythyttan	Grythyttan	Sweden - SE	TRAFIKVERKET - 0074	Ø
		10154	Grythyttans norra	Grythyttans norra	Sweden - SE	TRAFIKVERKET - 0074	0
		10155	Gryttje	Gryttje	Sweden - SE	TRAFIKVERKET - 0074	Ø
		1191	Grangesberg	Grangesberg	Sweden - SE	TRAFIKVERKET - 0074	Ø
		105	Abisko turististation	Abisko turiststation	Sweden - SE	TRAFIKVERKET - 0074	Ø
		106	Abisko östra	Abisko ostra	Sweden - SE	TRAFIKVERKET - 0074	Ø
		112	Agnesberg	Agnesberg	Sweden - SE	TRAFIKVERKET - 0074	Ø
		116	Alby	Aby	Sweden - SE	TRAFIKVERKET - 0074	Ø
		10001	Alcholm	Aleholm	Sweden - SE	TRAFIKVERKET - 0074	Ø
		118	Alfta	Atta	Sweden - SE	TRAFIKVERKET - 0074	Ø
		10002	Algutsgården	Agutsgarden	Sweden - SE	TRAFIKVERKET - 0074	Ø
		110	Alingsås	Aingsas	Sweden - SE	TRAFIKVERKET - 0074	Ø
	0 selected e	entities 🛞 Export JSON				Валла раг рада: 100 — 1 — 100 of X72	10  < < >1

#### 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



Primary locations' custom properties can be imported to the system.

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

#### Column: "Isolated"

- This Boolean column indicates whether the location is not used by any active segment.
- A location is marked true (Isolated) if it:
  - o Is not part of any segment at the current validity date, or
  - o Is only connected to inactive segments (past validity)
- The value is precomputed during specific system operations (e.g. segment import, release of new versions, validity changes).

Export JSON selected locations can be exported to a json-file

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

#### 6.2.4.2 Primary location details

The user can open the detailed data of a primary location via the edit icon in the overview.

Here the user can add or edit custom properties for primary locations



Interactive Map Map Management									
Topology > Max-Management > Primary Location Detail									
Segments	PRIMARY LOCATION DETAIL								
Sections	Location Information								
Primary Locations	Code 4999	Name Grimsås		Name Ascil Grimsas					
Subsidiary Locations	Country Sweden - SE		Responsible IM TRAFIKVERKET - 0074						
topology Evenis	Start Valisty 2013-04-30		Description						
	End Validity								
	-								
	Additional Information								
	Lattude 57.482414	LongRude 13.543622		NUTS Code 3099					
	Active Flags	Freight Start Validity		Freight End Validity					
	Container Handling Freight Possible	2013-04-30 Passenger Start Validity		 Passenger End Validity					
		-							
	Unique OP ID		Tipe of Operational Point						
	Type of Track Gauge Changeover Facility		Railway Location of Operational Point						
	Custom Properties				Add new				
	Back								

Other data cannot be changed as this is restricted functionality of CRD part of the application.

#### **Isolated Status:**

- The field "Isolated" appears in the detail view under the "Basic Properties" group.
- It is read-only and reflects the precomputed isolation status.
- This allows topology editors to immediately recognize disconnected nodes.

#### Automatic Update of Isolated Status:

- The system automatically recalculates the isolation status of a primary location after the following events:
  - Import of new segment data (CSV, JSON, railML)
  - o Release of a new version in RIS topology
  - o Manual creation or validity modification of segments
- Isolation is determined using current system date (no historical/future validity selection possible in the grid)

#### 6.2.5 Subsidiary locations

#### 6.2.5.1 Overview of subsidiary locations

Like the CRD area of the application, the subsidiary locations are shown here in an overview



		<u>유</u> Topo	logy 🙎 Corridors Information	▲ RFP Information	D @ Settings		Baen A	
Interactive Map Management								
Topology > Map Management > Subsidi	ary Locations							
Segments	SUBSIDIARY LOCATIONS (55618)						(*) Import	III Columns
Tracks	Select Code	Name	Type	Country	Responsible IM	Primary Location	Allocation Company	Actions .
Sections								
Primary Locations	IT NAZ	Arzberg (Oberfr)	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Arzberg (Oberfr) - DE10294	DB InfraGO AG - 0080	0
Subsidiary Locations	E FASB	Asbach (Kr Hersfeld)	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Asbach (Kr Hersfeld) - DE10295	DB InfraGO AG - 0080	0
Topology Events		Aschaffenburg Hbf	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg Hbf - DE10296	D8 InfraGO AG - 0080	0
		Aschaffenburg Hbf Ausfahrt	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg Hbf Ausfahrt - DE10297	DB InfraGO AG - 0080	0
	□ NAH E	Aschaffenburg Hbf Einfahrt	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg Hof Einfahrt - DE10298	DB InfraGO AG - 0080	P
	NAH U	Aschaffenburg Hbf Umspanngruppe	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg Hbf Umspanngruppe - DE10299	DB InfraGO AG - 0080	0
	NASL NASL	Aschaffenburg Masch-Fabrik Linde	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg Masch-Fabrik Linde - DE10300	DB InfraGO AG - 0080	Ø
	NASU NASU	Aschaffenburg Süd	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg Süd - DE10301	DB InfraGO AG - 0080	Ø
	NAH G	Aschaffenburg-Goldbach	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg-Goldbach - DE10302	DB InfraGO AG - 0080	Ø
	□ NAHF	Aschaffenburg-Hochschule	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg-Hochschule - DE10303	DB InfraGO AG - 0080	Ø
	D NAN	Aschaffenburg-Nikheim	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg-Nilkheim - DE10304	DB InfraGO AG - 0080	Ø
	I NANG	Aschaffenburg-Nikheim DB-Grenze	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg-Nilkheim DB-Grenze - DE10305	DB InfraGO AG - 0080	Ø
	NOBN NOBN	Aschaffenburg-Obernau	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschaffenburg-Obernau - DE10306	DB InfraGO AG - 0080	Ø
	MASC MASC	Aschau (Chiemgau)	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschau (Chiemgau) - DE10307	DB InfraGO AG - 0080	Ø
	AAG AAG	Ascheberg (Holst)	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Ascheberg (Holst) - DE10308	DB InfraGO AG - 0080	0
	EAS8	Ascheberg (Westf)	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Ascheberg (Westf) - DE10309	DB InfraGO AG - 0080	0
	HASD HASD	Aschendorf	Company specific identifier - 41	Germany - DE	DB InfraGO AG - 0080	Aschendorf - DE10310	DB InfraGO AG - 0080	0
	_							^
	0 selected entities Deport JSON					Rems per page: 100	▼ 1 - 100 of 55618   <	$\langle \rangle \rangle$

#### 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

b Import Subsidiary locations' custom properties can be imported to the system.

I column selector is opened by means of which the shown columns can be

changed.

Export JSON selected locations can be exported to a json-file

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

#### 6.2.5.2 Subsidiary location details

The user can open the detailed data of a track via the edit icon in the overview.



#### Here the user can add or edit custom properties for subsidiary locations

Interactive Man Man Manageme	unt .			
Topology > Map Management >	Subsidiary Location Detail			
Formente				
Tracks	SUBSIDIARY LOCATION DETAIL			
Sections	Location Information			
Primary Locations	Code NAH U		Name Aschaffenburg Hbf Umspanngruppe	
Subsidiary Locations	Tipe			
Topology Events	Primary Location		Allocation Company	
	Aschaffenburg Hbf Umspanngruppe - DE10299		DB InfraGO AG - 0080	
	Germany - DE		DB InfraGO AG - 0080	
	Start Validity 2008-04-24		End Validity	
	Additional Information		Description	
	-			
	Longitude			
	Custom Properties			D Add new
	Property	Value		Actions
			No Custom Properties found	
	Back			

Other data cannot be changed as this is restricted functionality of CRD part of the application.

#### 6.2.6 Topology events

This overview shows the chronological sequence of changes to the topological network.

		<u>유</u> Topology	A Corridors Information	RFP Information	CRD	Settings	i da en	Active
Interactive Map Map Management								
Topology > Map Management > Topolog	y.Events							
Segments	TOPOLOGY EVENTS (54406)							Columns
Tracks	Eventüme			Tjpe 🕈		User	Adions	
Sections	<*		•			•		
Primary Locations	04.07.2018 14:57:02			Location create		entralites statute @rne.eu	•	
Subsidiary Locations	28.09.2018 13.57.01			Location create		weştimi (Service carle (Brine.eu	۰ ۵	
topology Events	28.09.2018 13.57.01			Location create		antina sa sina ang ang eu	• ©	
	28.09.2018 13.57.00			Location create		unitan dalamat gine eu	•	
	28.00.2018 13.57:00			Location create		ant, frank die antere Brine eu	• •	
	28.09.2018 13.56.59			Location create		ally and grine.eu	• ©	
	28.09.2018 13.56:59			Location create		wijken et alle en grne eu	© ©	
	28.09.2018 13.56.58			Location create		gine eu	• •	
	28.09.2018 13.56.58			Location create		and a staff of the Brine eu	• •	
	28.09.2018 13.56:58			Location create		vitten statene ligene.eu	• •	
	28.09.2018 13.56:57			Location create		@rne.eu	• •	
	28.09.2018 13.56.57			Location create		sentine statistics and grine.cu	· •	
	28 09 2018 13 56 56			Location create		c @rne eu	⊙ ©	
	28.09.2018 13.56.56			Location create		angeneration and grine eu	• •	
	28.09.2018 13.56:56			Location create		angina and an grine eu	• •	
	28.09.2018 13.05:56			Location create		in juli 2 kill in grie eu	۵ ا	
	28.09.2018 13:56:55			Location create		Brne eu	© ©	
	10 NN 1040 49 KC KA			Location constra		-makes-consoliated de-mount	A	
							liems per page. 100 💌 1 – 100 of 54406	I< < > >I



The following events are tracked:

- Location create, modify, delete
- Section create, modify, delete, split, combine
- Segment create, modify, delete, split, combine
- Track create, modify

#### 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.

#### <u>Actions</u>

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

### 6.3 RailML Interface

RailML interface allows infrastructure data to be exported or imported as a RailML v2.5 XML file.

This is a manually initiated process and must be performed by IT support if required.

Details about the data structures and also implemented logics of the import are described in the document DocumentationRISInterfaceRailML

### 6.4 **RINF** Interface

RINF data can be imported via the RINF Interface of RIS. For this purpose, an import can be carried out country by country. First, the RINF data is obtained from the ERA-RINF database via a Rest API and stored as raw data in RIS.



In a second step, this data is migrated to the RIS topology. Which data are used and which mapping logic is applied is described in the document RINF - CIP Parameters Alignment v2.

The import is a manually initiated process and must be performed by IT support if required.