

User Guide STNet APIs

ST - Schweiz Tourismus

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1 About

This user guide describes the ST-Net API for accessing data of the ST network. It guides you through the initial steps, shows a few examples and lists all important system-messages as well as all possible parameters.

The ST-Net API is a RESTful application and provides access to specific data of the ST network over HTTP. All important CRUD (create, read, update, delete) operations will be possible to perform, given that you have the permission. The output formats are variable and can be defined for each request (e.g. XML, JSON). The application is secured by a shared key authentication and can only be accessed by registered users.

2 Content

3 Getting started

3.1 Request registration

First of all you have to be a registered user for the ST-Net API and the desired service. You can request this required registration at your ST-Net administrator. Without this registration you will not be allowed to perform any request.

3.2 Versioning

This application supports multiple versions per service. As for now only the service "offers" supports two different versions. Therefore you can skip this section if you don't use this service.

3.2.1 Offers Service

The offers service is supporting different versions since April 2018. Right now there are two different versions available which support the same parameters and can be accessed the same way. The only difference for now is the slightly changed response. You can compare the two definitions here:

Version	Definition
v1	http://st.stnet.ch/api/schemas/v1/offers.xsd
v2	http://st.stnet.ch/api/schemas/v2/offers.xsd

3.2.2

Examples

- Version 1: <http://st.stnet.ch/api/services/⟨⟨specific service name⟩⟩>
- Version 2: <http://st.stnet.ch/api/services/v2/⟨⟨specific service name⟩⟩>
- Version x: <http://st.stnet.ch/api/services/vX/⟨⟨specific service name⟩⟩>

3.3 Access the API

Over the URL "http://st.stnet.ch/api/services/⟨⟨specific service name⟩⟩" you can access the API and perform any implemented operation. All available services are listed in the chapter [Services](#).

There are necessary parameters, which are required for the authentication process on the system. You can find a list of all parameters in the chapter [Parameters](#).

3.3.1 Basic url

http://st.stnet.ch/api/services/

3.3.2 Authentication

To get access to the application it is required to send the specific username, a random token and a generated MD5 hash (ticket) in each request. This ticket can only be used once and consists of an MD5 hash, which has to be generated from a composition of the username, an api-key provided by the system, a random token as well as the current date in a specific format.

⚠ IMPORTANT ⚠

1. These authentication parameters must be provided with each request.
2. The generated ticket can only be used once per day! Therefore, you have to generate a random token and with it the new MD5 hash (ticket) for each request. Make sure that you send the current random token on each request.

Example

	Value	Parameter	Where to get it
username	userXY	stn-username=userXY	It is the same value as your ST-Net username.
random token	axbzh74h3h221h5	stn-token=axbzh74h3h221h5	Use a function to generate a random string.
api-key	abc-def-xyz	(must not be attached to URL)	Contact your ST-Net administrator. He can provide you with this information.
ticket (md5 hash)	MD5(username:api-key:random token:date) = MD5(userXY:abc-def-xyz:axbzh74h3h221h5:2016.01.06))	stn-ticket=bcf83ccbfcab0ce22bd88c1e7bb2f2f5	You have to generate it with the help of the parameters above. ⚠ You have to enter the ":" explicitly between the parameters. ⚠ MD5 Generator online: http://www.md5-generator.de/
example final URL	http://st.stnet.ch/api/services/⟨⟨specific service name⟩⟩?stn-username=userXY&stn-token=axbzh74h3h221h5&stn-ticket=bcf83ccbfcab0ce22bd88c1e7bb2f2f5		

You can find all available services in the chapter [Services](#).

After you have entered the whole URL and performed the request you will receive a list of available data (max 500 rows per request) in the XML format.

3.4 Read data

Besides the required authentication parameters you may attach several optional parameters. There exists the **stn-output** parameter to define the desired output format of the export.

3.4.1 XML export

The standard export output format is XML. You do not need to attach a specific parameter, besides the required authentication-parameters.

If you want, you can attach the parameter **stn-output=xml**.

The specific output structure can be found under [XML Output](#).

Example

```
http://st.stnet.ch/api/services/venues?stn-username=userXY&stn-token=axbzh74h3h221h5&stn-  
ticket=bcf83ccbfcab0ce22bd88c1e7bb2f2f5&stn-output=xml
```

3.4.2 JSON export

To get the output data in JSON you have to declare it in the parameter **stn-output**.

The specific output structure can be found under [JSON Output](#).

Example

```
http://st.stnet.ch/api/services/venues?stn-username=userXY&stn-token=axbzh74h3h221h5&stn-  
ticket=bcf83ccbfcab0ce22bd88c1e7bb2f2f5&stn-output=json
```

3.4.3 Pagination

When you perform a basic read-request, you will receive maximal 500 entities of the requested data (e.g. venues). 500 is the system defined standard size for the output.

There is also a possibility to narrow the data down. With the parameter **stn-size** it is possible to define the desired size of the output (e.g. stn-size=20).

If there are more than 20 entities in the database, your output will automatically display the first 20 rows. With the parameter **stn-page** it is possible to define the desired page (e.g. stn-page=3).

Requesting a page that does not exist results in a response containing the requested number of entities contained on the first page. The same goes for requesting an impossible size.

Example

If you wish to see the third page of the venues table, each page displaying 20 entities you have to send the parameters **stn-size=20** and **stn-page=3**.

```
http://st.stnet.ch/api/services/venues?stn-username=userXY&stn-token=axbzh74h3h221h5&stn-  
ticket=bcf83ccbfcab0ce22bd88c1e7bb2f2f5&stn-output=xml&stn-size=20&stn-page=3
```

3.4.4 Filtering

It is possible to apply certain filters to your read request. The default query does not contain any filters and will return all entities of the requested type. The filter parameters work with or without the pagination parameters.

All possible filters for each service can be found in the chapter parameters under [Specific Filterparameters](#).

Example

If you would like to get a set of venues only from a specific subregion (e.g. subregion key = 140) you have to use the **stn-sKey** parameter and add it to the request-url with the specific value **stn-sKey=140**.

```
http://st.stnet.ch/api/services/venues?stn-username=userXY&stn-token=axbzh74h3h221h5&stn-
ticket=bcf83ccbfcab0ce22bd88c1e7bb2f2f5&stn-output=xml&stn-sKey=140
```

3.4.5 Address-, Resort-, Region-Type Definitions

It is possible to define the shown information for the address, the resort and the region entity in a request with the help of the parameters **stn-addressType**, **stn-resortType** and **stn-regionType**. This is only possible if your requested data contains an address.

If you do not define these types, there always will be shown the short-type of the address and the resort and the ref type of the region.

There exists no short-type for the region because it has not that much variables to show.

Composition of the entities

An address entity contains a resort entity and the resort entity contains a region entity. For example if you want to display the region of a venue you have to define the address type full or **short**, otherwise the information will be excluded.

If you set the **stn-addressType** to ref, only the address-id will be shown. You will not get any information about the resort and the region.

- **Full**
Exports all informations available of this element including the child-entity
- **short**
Exports only a few informations of this element including the child-entity
- **ref**
Exports only the reference(id) of this element

Example

- full address, short resort and ref region

Complete version:

```
http://st.stnet.ch/api/services/venues?stn-username=userXY&stn-token=axbzh74h3h221h5&stn-
ticket=bcf83ccbfcab0ce22bd88c1e7bb2f2f5&stn-output=xml&stn-addressType=full&stn-resortType=short&stn-regionType=ref
```

Short version:

```
http://st.stnet.ch/api/services/venues?stn-username=userXY&stn-token=axbzh74h3h221h5&stn-
ticket=bcf83ccbfcab0ce22bd88c1e7bb2f2f5&stn-output=xml&stn-addressType=full
```

3.5 Create data

Coming soon

3.6 Update data

Coming soon

3.7 Delete data

Coming soon

4 Output structure

The received output has a specific structure. Its root tag has always the name of the service defined in the request. The first child tag is always the <header> tag, which shows important information of the received result (e.g. resultsize).

After the header all the entities are being listed.

4.1 Header

Tag	Meaning
resultSize	information about how many entities are stored in the DB
pageSize	requested size of the page
resultsInPage	information about how many entities the request returned (max 500)
totalPages	information about how many pages the result has
currentPage	number of the current shown page

4.2 XML Output

4.2.1 Structure

```
<servicename xmlns:xsi="..." xsi:noNamespaceSchemaLocation="...">
  <header>
    <resultSize>...</resultSize>
    <pageSize>...</pageSize>
    <resultsInPage>...</resultsInPage>
    <totalPages>...</totalPages>
    <currentPage>...</currentPage>
  </header>
  <entityname>
    ...
  </entityname>
  ...
</servicename>
```

4.2.2 XSD location

- <http://st.stnet.ch/api/schemas/v1/base.xsd> (schema of the base tags [e.g. header])
- <http://st.stnet.ch/api/schemas/v<<specific version number>>/<<specific service name>>.xsd>

4.3 JSON Output

4.3.1 Structure

```
{
  "servicename": {
    "header": {
      "resultSize": .... ,
      "pageSize": .... ,
      "resultsInPage": .... ,
      "totalPages": .... ,
      "currentPage": ....
    },
    "entityname": {
      ...
    }
  }
}
```

5 Services

5.1 Overview

URL	Service Name	Type
http://st.stnet.ch/api/services/venues	venues	Access the venues data on the ST network including their addresses, resorts, regions and facilities
http://st.stnet.ch/api/services/addresses	addresses	Access the address data on the ST network
http://st.stnet.ch/api/services/offers	offers	Version 1 Access the offers data on the ST network including their addresses, resorts and regions
http://st.stnet.ch/api/services/v2/offers	v2/offers	Version 2 Access the offers data on the ST network including their addresses, resorts and regions

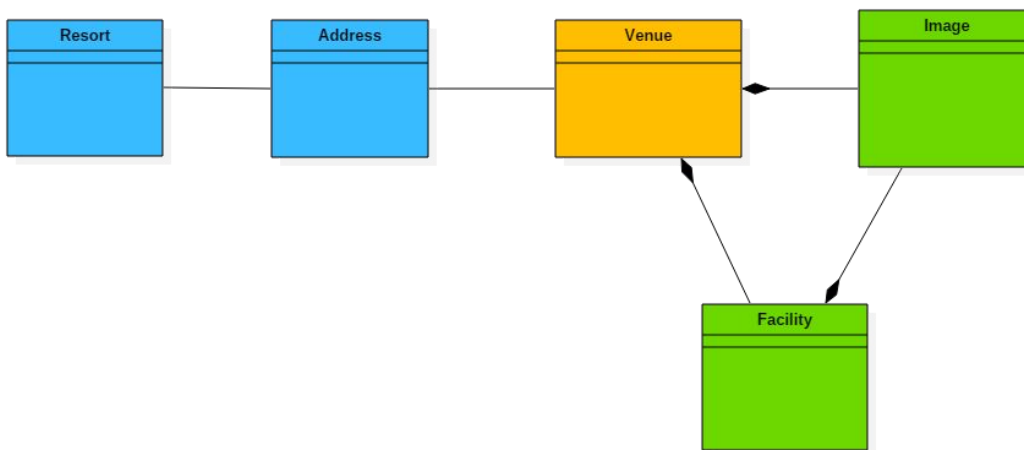
URL	Service Name	Type
http://st.stnet.ch/api/services/v3/offers	v3/offers	Version 3 Access the offers data on the ST network including their addresses, resorts and regions
http://st.stnet.ch/api/services/subregions	subregions	Access the subregions data of the ST network
http://st.stnet.ch/api/services/resorts	resorts	Access the resorts data on the ST network
http://localhost:8080/st-api/services/resorts/news	resorts-news	Access the resorts news data on the ST network
http://st.stnet.ch/api/services/fewoclassifications	fewoclassifications	Access specific data from one specific 'fewo'-classification
http://st.stnet.ch/api/services/fewoclassificationsform	fewoclassificationsform	Provides access to classifications
http://st.stnet.ch/api/services/classificationzuerst	classificationzuerst	Provides a list of holiday/vacation homes and guestrooms that are set as accessible and require proof from ProInfirmis
http://st.stnet.ch/api/services/wisporfamilyprices	wisporfamilyprices	Version 1 Provides a list of wispo stations and their rates
http://st.stnet.ch/api/services/v2/wisporfamilyprices	wisporfamilyprices	Version 2 Provides a list of wispo stations and their rates
http://st.stnet.ch/api/services/wisporoutes	wisporoutes	Provides a list of wispo routes
http://st.stnet.ch/api/services/spa	spa	Provides a list of spas and their properties
http://st.stnet.ch/api/services/sospo	sospo	Provides a list of baths and its relevant informations
http://st.stnet.ch/api/services/wispostations	wispostations	Provides a list of wispo stations and its base data as well as the daily report info, prices, weather, conditions, links, etc.

5.2 Compositions

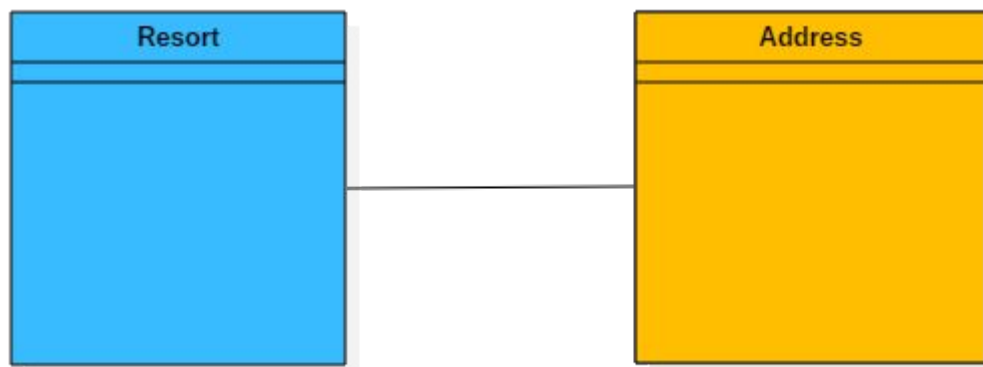
Explanation

- Orange: Main object of request (e.g. venues-export has venue as main object).
- Blue: Objects that are delivered with the export, which can stand for their own. For example the venues export delivers venues objects but also the associated address object, but if you like you could export only addresses as well.
- Green: Objects that are attached (composition) to the main object and cannot stand alone (e.g. an image-object cannot be exported alone, it always is attached to another object.).

5.2.1 Venues



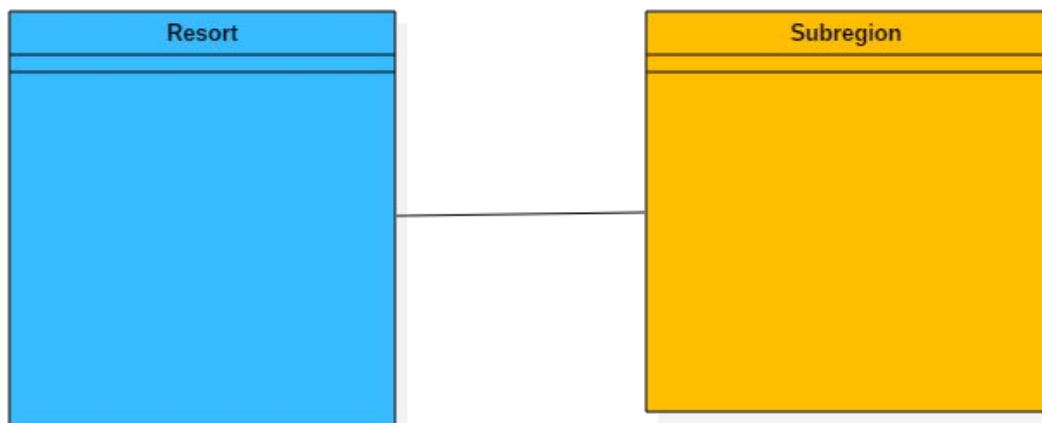
5.2.2 Addresses



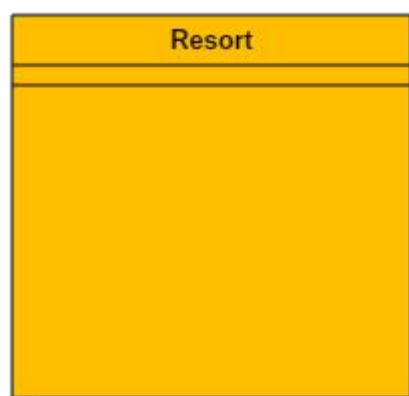
5.2.3 Offers



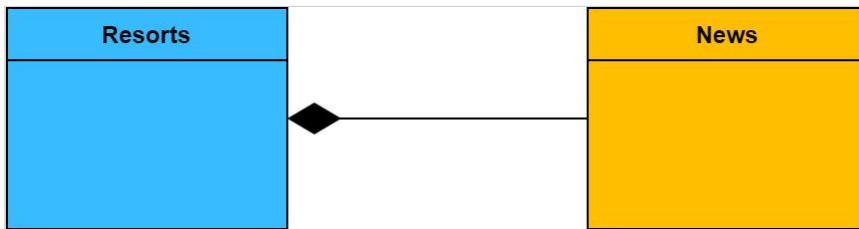
5.2.4 Subregions



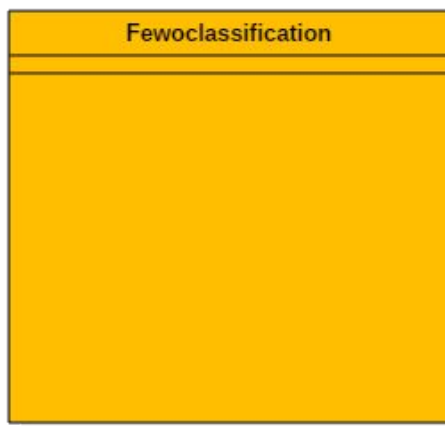
5.2.5 Resorts



5.2.6 Resorts/News



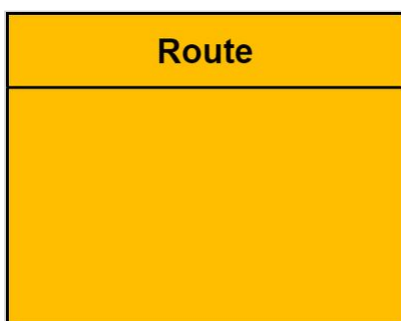
5.2.7 Fewoclassifications(-form)



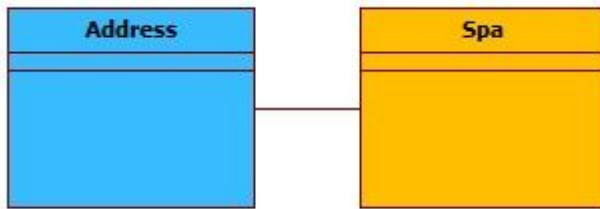
5.2.8 WispoFamilyPrices



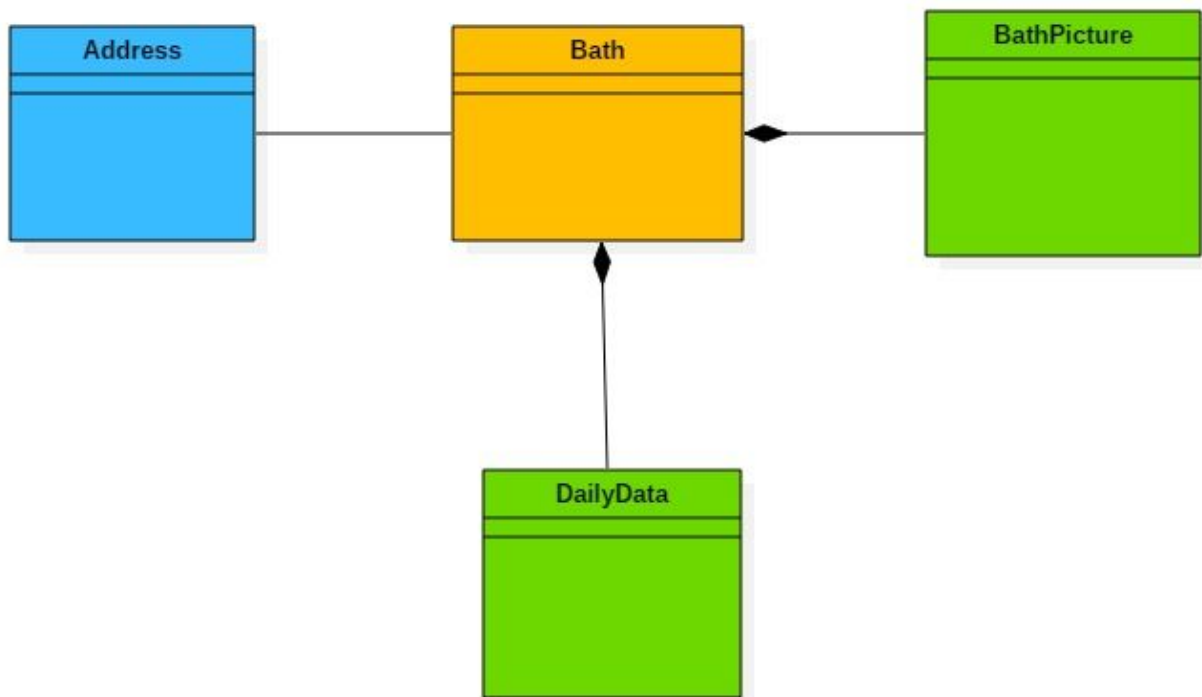
5.2.9 WispoRoutes



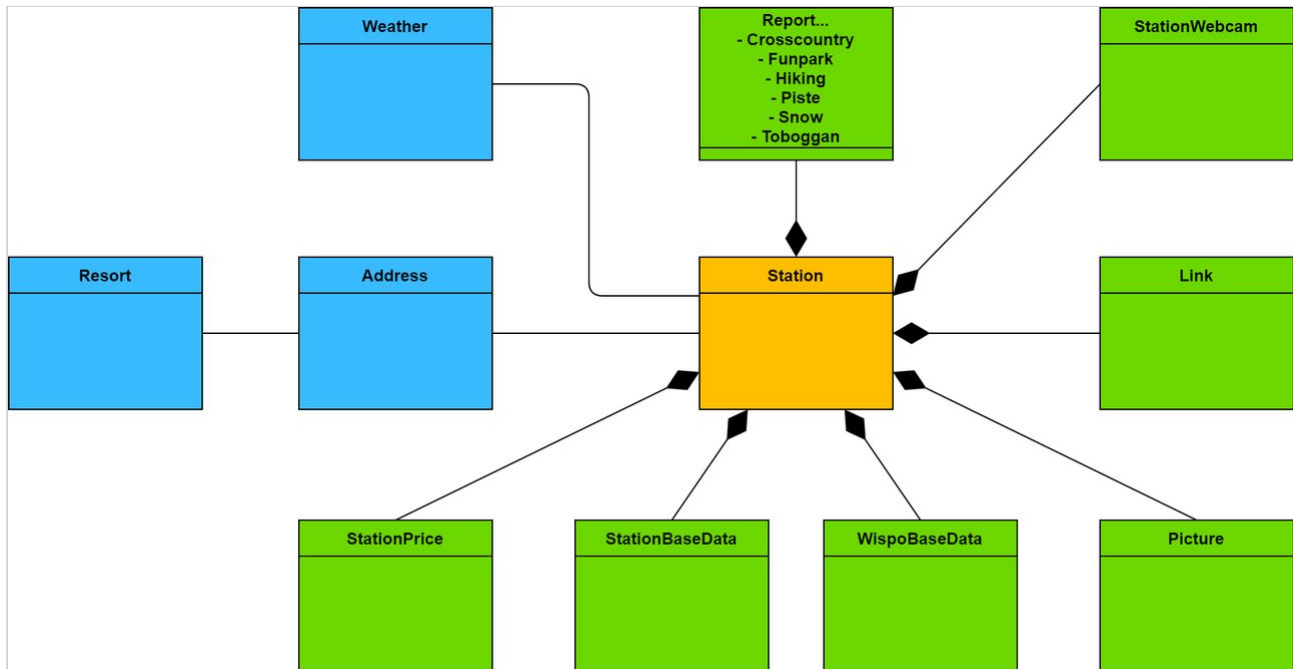
5.2.10 Spa



5.2.11 Sospo Bath



5.2.12 WispoStations



6 Parameters

6.1 Basic url

<http://st.stnet.ch/api/services/⟨⟨specific service name⟩⟩?⟨⟨parameters⟩⟩>

6.2 Basic parameters

Parameter	required	default	Value	Format
stn-username	true	null	ST-Net username (same as ST-Net Login)	String
stn-token	true	null	random string	String
stn-ticket	true	null	generated MD5 hash ¹	MD5(stn-username:apikey ¹ :stn-token:CurrentDate ²)
stn-output	false	xml	xml, json	String
stn-addressType	false	short	full, short, ref ³	String
stn-resortType	false	short	full, short, ref	String

Parameter	required	default	Value	Format
stn-regionType	false	ref	full, ref	String
stn-page	false	1	0 < number <= totalPages ⁴	String
stn-size	false	500	0 < number <= 500	String
stn-languages	false	all	language string (eg. de) comma(,) language string (eg. fr)	List of language strings, separated by comma(,) Example: stn-languages=de,fr,it,en ⚠ Do not use spaces ⚠ ⚠ Available languages may vary from each service ⚠
stn-changed	false	all	timestamp as string without special-chars (e.g. 20160124212540)	yyyyMMddHHmmss (timestamp without special chars) ⚠ In the fewoclassification-service, the stn-changed filter does not exist, because it would not make any sense. Given that each export needs the declaration of ids, it is not necessary to enable the user for additional filter-parameters. ⚠ ⚠ The wispofamilyprices-service, doesn't support the stn-changed parameter. ⚠ ⚠ The wispostations-service does only consider the base-data, link and picture change-dates. The report changes are not considered because the change daily.

1) You can find this key in the ST-Net application under ST-APIS.

2) Current date has to be in the following format: yyyy.MM.dd

3) Defines the output of the address in the response.

4) Total number of pages is returned with each request in the header-element as parameter.

6.3 Specific Filterparameters

6.3.1 Venues Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- sKey=120,150,157	Subregion-Keys value of the subregion id
stn-rKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- rKeys=120,150,157	Resort-Keys value of the resort id
stn-regKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- regKeys=120,150,1 57	Region-Keys value of the region id
stn-aKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- aKeys=120,150,157	Address-Keys value of the address id
stn-zips	false	all	0000 < number comma(,) 0000 < number ...	List of 4-digit- integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- zips=3000,3011,307 3	
stn- releaseStateIds	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- releaseStateIds=3 80,1200	Release-State Ids value of the release state id

6.3.2 Offers Service (v1 and v2)

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- sKeys=120,150,15 7	Subregion-Keys value of the subregion id
stn-rKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- rKeys=120,150,157	Resort-Keys value of the resort id
stn-regKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- regKeys=120,150, 157	Region-Keys value of the region id
stn-aKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- aKeys=120,150,15 7	Address-Keys value of the address id
stn-zips	false	all	0000 < number comma(,) 0000 < number ...	List of 4-digit-integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- zips=3000,3011,30 73	
stn-offerType	false	hotel	hotel, adventure	Single string value, multiple values are not supported.	stn- offerType=hotel stn- offerType=advent ure	

6.3.3 Resorts Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,)	stn- sKeys=120,150,157	Subregion-Keys value of the subregion id

Parameter	required	default	Value	Format	Examples	Meaning
				⚠ Do not use spaces ⚠		
stn-rKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- rKeys=120,150,157	Resort-Keys value of the resort id
stn-regKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- regKeys=120,150,1 57	Region-Keys value of the region id
stn-zips	false	all	0000 < number comma(,) 0000 < number ...	List of 4-digit-integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- zips=3000,3011,307 3	
stn-baseData	false	false	true, false	boolean	stn- baseData=true stn- baseData=false	

6.3.4 Resorts/News Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- sKeys=120,150,15 7	Subregion-Keys value of the subregion id
stn-rKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,)	stn- rKeys=120,150,15 7	Resort-Keys value of the resort id

Parameter	required	default	Value	Format	Examples	Meaning
				⚠ Do not use spaces ⚠		
stn-regKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- regKeys=120,150, 157	Region-Keys value of the region id
stn-zips	false	all	0000 < number comma(,) 0000 < number ...	List of 4-digit- integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- zips=3000,3011,30 73	
stn- showOnlyNews	false	false	true, false	boolean	stn- showOnlyNews =true stn- showOnlyNews =false	Show only resorts with news available

6.3.5 Addresses Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- sKeys=120,150,157	Subregion-Keys value of the subregion id
stn-aKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- aKeys=120,150,157	Address-Keys value of the address id

Parameter	required	default	Value	Format	Examples	Meaning
stn-rKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- rKeys=120,150,157	Resort-Keys value of the resort id
stn-regKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- regKeys=120,150,1 57	Region-Keys value of the region id
stn-zips	false	all	0000 < number comma(,) 0000 < number ...	List of 4-digit-integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- zips=3000,3011,307 3	

6.3.6 Subregions Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- sKeys=120,150,15 7	Subregion-Keys value of the subregion id
stn-rKeys	false	all	0 < number comma(,) 0 < number ...	List of Integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- rKeys=120,150,15 7	Resort-Keys value of the resort id
stn- subregionType	false	ref	full, ref	String	stn- subregionType=f ull	

6.3.7 FewoClassifications Service

Parameter	required	default	Value	Format	Examples
stn-mdid	true ¹⁾		Any valid metaDirectoryId	List of Strings separated by comma (,)	stn-id=fewokl0000000000,citi000000000000
stn-ownerId & stn-owner	true ¹⁾		Any valid metaDirectoryOwnerId and metaDirectoryOwner	stn-ownerId: List of Integers, separated by comma (,) stn-owner: String	stn-ownerId=testfewo_full3,testfewo_full4&st-owner=reka00

¹⁾ You can rather use the parameter 'stn-mdid' or the combination of the two parameters 'stn-ownerId' and 'stn-owner' but not altogether.

6.3.8 FewoClassificationsForm Service

Parameter	required	default	Value	Format	Examples
stn-mdid	true ¹⁾		Any valid metaDirectoryId	String	stn-id=fewokl0000000000 stn-id=citi000000000000
stn-ownerId & stn-owner	true ¹⁾		Any valid metaDirectoryOwnerId and metaDirectoryOwner	String	stn-ownerId=testfewo_full3&st-owner=reka00
stn-mode	true		One of the following values <ul style="list-style-type: none"> ▪ new (to create a new classification) ▪ edit (to edit a classification) ▪ read (to view a classification) 	String	stn-mode=new stn-mode=read
stn-lang	false		The following languages are supported. <ul style="list-style-type: none"> ▪ German(de) ▪ French(fr) ▪ Italian(it) ▪ English(en) 	String	stn-lang=de stn-lang=fr stn-lang=it stn-lang=en

¹⁾ You can rather use the parameter 'stn-mdid' or the combination of the two parameters 'stn-ownerId' and 'stn-owner' but not altogether.

6.3.9 ClassificationZuerst Service

There are no service-related parameters available. It always delivers a full export.

6.3.10 WispoFamilyPrices Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(, 0 < number ...	List of integers, separated by comma (, ⚠ Do not use spaces ⚠	stn- sKeys=120,150,157	Subregion-Keys value of the subregion id
stn-aKeys	false	all	0 < number comma(, 0 < number ...	List of integers, separated by comma (, ⚠ Do not use spaces ⚠	stn- aKeys=120,150,15 7	Address-Keys value of the address id
stn-rKeys	false	all	0 < number comma(, 0 < number ...	List of integers, separated by comma (, ⚠ Do not use spaces ⚠	stn- rKeys=120,150,157	Resort-Keys value of the resort id
stn-regKeys	false	all	0 < number comma(, 0 < number ...	List of integers, separated by comma (, ⚠ Do not use spaces ⚠	stn- regKeys=120,150,1 57	Region-Keys value of the region id
stn-zips	false	all	0000 < number comma(, 0000 < number ...	List of 4-digit-integers, separated by comma (, ⚠ Do not use spaces ⚠	stn- zips=3000,3011,30 73	
stn- stationKeys	false	all	0 < number comma(,	List of integers, separated by comma(,	stn- stationKeys=21,45 ,23	

Parameter	required	default	Value	Format	Examples	Meaning
			0 < number ...	⚠ Do not use spaces ⚠		

6.3.11 WispoRoutes Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-routeNumbers	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- routeNumbers=544, 841,153,822	Route-Numbers
stn-routeType	false	all	a valid route type: <ul style="list-style-type: none"> ▪ snowshoe ▪ winterhikin g ▪ crosscountr y ▪ sledging 	single string	stn- routeType=snowsh oe	routeType to filter

6.3.12 WispoStation Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- sKeys=120,150,15 7	Subregion-Keys value of the subregion id
stn-aKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- aKeys=120,150,15 7	Address-Keys value of the address id
stn-rKeys	false	all	0 < number comma(,)	List of integers, separated by comma (,)	stn- rKeys=120,150,15 7	Resort-Keys value of the resort id

Parameter	required	default	Value	Format	Examples	Meaning
			0 < number ...	⚠ Do not use spaces ⚠		
stn-regKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- regKeys=120,150, 157	Region-Keys value of the region id
stn-zips	false	all	0000 < number comma(,) 0000 < number ...	List of 4-digit-integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- zips=3000,3011,30 73	
stn- stationKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma(,) ⚠ Do not use spaces ⚠	stn- stationKeys=21,4 5,23	
stn- stationType	false	short	full, short	Single string value, multiple values are not supported.	stn- stationType=full	Whether to include detailobjects associated with the Stations

6.3.13 Spa Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- sKeys=120,150,157	Subregion-Keys value of the subregion id
stn-aKeys	false	all	0 < number comma(,) 0 < number	List of integers, separated by comma (,)	stn- aKeys=120,150,157	Address-Keys value of the address id

Parameter	required	default	Value	Format	Examples	Meaning
			...	⚠ Do not use spaces ⚠		
stn-rKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- rKeys=120,150,157	Resort-Keys value of the resort id
stn-regKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- regKeys=120,150,1 57	Region-Keys value of the region id
stn-zips	false	all	0000 < number comma(,) 0000 < number ...	List of 4-digit-integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- zips=3000,3011,307 3	
stn-spaKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma(,) ⚠ Do not use spaces ⚠	stn- spaKeys=21,45,23	

6.3.14 Sospo Service

Parameter	required	default	Value	Format	Examples	Meaning
stn-sKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- sKeys=120,150,157	Subregion-Keys value of the subregion id
stn-aKeys	false	all	0 < number comma(,)	List of integers, separated by comma (,)	stn- aKeys=120,150,157	Address-Keys value of the address id

Parameter	required	default	Value	Format	Examples	Meaning
			0 < number ...	⚠ Do not use spaces ⚠		
stn-rKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- rKeys=120,150,157	Resort-Keys value of the resort id
stn-regKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- regKeys=120,150,1 57	Region-Keys value of the region id
stn-zips	false	all	0000 < number comma(,) 0000 < number ...	List of 4-digit-integers, separated by comma (,) ⚠ Do not use spaces ⚠	stn- zips=3000,3011,307 3	
stn-bathKeys	false	all	0 < number comma(,) 0 < number ...	List of integers, separated by comma(,) ⚠ Do not use spaces ⚠	stn- bathKeys=8,9,11	

7 Error-Handling

HTTP Status	Type	Details	What to do
400 Bad request	Missing service	Your request is missing a service definition. Please define a service in your URL and try again. (See the User-Guide under 'Services' for more information)	For each request you need to specify the desired service. See Services to find all available Services.

HTTP Status	Type	Details	What to do
400 Bad request	Missing parameter	Your request is missing one or more parameters. Please check your request and try again. (See the User-Guide under 'Parameters' for more information)	Check if you specified all required parameters. A list of the parameters can be found under Parameters .
400 Bad request	Ticket already used	Your sent ticket has been used before. Please generate a new ticket and try the request again.	The generated MD5 hash has been used before on that day. Generate another random token and with that a new MD5 hash.
400 Bad request	Subregion parameter value not valid	The parameter sKey contains a invalid value. Please enter a valid subregion value and try again. (See the User-Guide under 'Parameters' for more information)	Check if you entered a integer value and not a string as subregion-parameter.
400 Bad Request	Problem while retrieving data	There occurred a problem while retrieving the data from the database. Please notify your administrator.	Notify your administrator that there occurred a problem while requesting the data on the server. Send him the details-section of the response so he knows what the problem was.
401 Unauthorized	Invalid authentication	Your request resulted in an invalid authentication exception. Please check your parameters and try again.	It could be that you generated a wrong MD5 hash. See the section Authentication to get more information about how to build a correct MD5 ticket and which parameters are required for the authentication mechanism.
403 Forbidden	User authentication exception	The user with the given username is not registered and therefore has no authorization to access this service. Please check with your administrator.	Your specified user does not have access to the ST-Net application. Ask your administrator for help.
403 Forbidden	No access to services	Your user with the given username does exist but does not have the permission to use the services application from ST-Net. Please contact your administrator.	Your specified ST-Net user does not have the permission to access any services. Contact your ST-Net administrator to get the required permission.

HTTP Status	Type	Details	What to do
403 Forbidden	No permission for specific service	The user with the given username has no permission for the specified service. Please contact your administrator to get the required permission.	Your specified ST-Net user does not have the permission to access the specified service. Contact your ST-Net administrator to get the required permission.

8 Composition models

8.1 Venues