



Kickoff KIWIS Kanton SZ

KIWIS Rest-API

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REST-API

- ▶ Application Programming Interface mit zusätzlichen Bedingungen
- ▶ Zur Kommunikation zwischen Client & Server
- ▶ **Zustandslos**: Jede API-Interaktion ist ein separater, unabhängiger Event -> Authentisierung mit jedem Request
- ▶ Unterstützt **CRUD-Operationen**
 - Create
 - Read
 - Update
 - Delete
- ▶ Häufigstes Protokoll: **HTTP(S)**

HTTP-Verben

Zweck	CRUD Operation	HTTP Verb
Neue Variable erstellen	Create	POST
Wert einer Variable abfragen	Read	GET
Wert einer Variable anpassen	Update	PUT, PATCH
Variable löschen	Delete	DELETE

HTTP Request

Verb	URI	Headers	
GET	https://meta.dev.innet.io/v1/project	accept: application/json Authorization: Bearer eyJ...	
	https://kiwis.innetag.ch/KiWIS/KiWIS ?datasource=1 &service=kisters &type=queryServices &request=getrequestinfo &kvp=true		
Verb	URI	Headers	Data / Body
POST	https://meta.dev.innet.io/v1/project	accept: application/json Authorization: Bearer eyJ... Content-Type: application/json	{ «name»: «mySuperProject» }
			{ "datasource": "1", "service": "kisters", "type": "queryServices", "request": "getrequestinfo", "kvp": "true" }

HTTP Response

Status Code

200

Body

```
{
  «name»: «mySuperProject»
  «project_id»: «unique-project-id»
}
```

```
{
  "station_id": "501769",
  "ts_id": "266621010",
  ...
  "parametertype_name": "Abfluss",
  "from": "2023-04-30T14:50:00.000Z",
  "to": "2024-11-04T10:10:00.000Z"
}
```

oder:

```
<html xmlns="http://www.w3.org/1999/xhtml">
...
</html>
```

Status Code Klasse	Bedeutung	Beispiel
1xx	Informational	102 Processing
2xx	Successful	200 OK, 201 Created
3xx	Redirection	301 Moved Permanently
4xx	Client Error	401 Unauthorized, 404 Not Found
5xx	Server Error	500 Internal Server Error

--> <https://httpcats.com>

Tool-Empfehlung: Postman

- "[...] an API platform for building and using APIs." (<https://www.postman.com/>)





Grundfunktionalität von Kiwis

<https://kiwis.innetag.ch/KiWIS/KiWIS?datasource=1&service=kisters&type=queryServices&request=getrequestinfo>

Kanton LU: Beispiele für API Requests

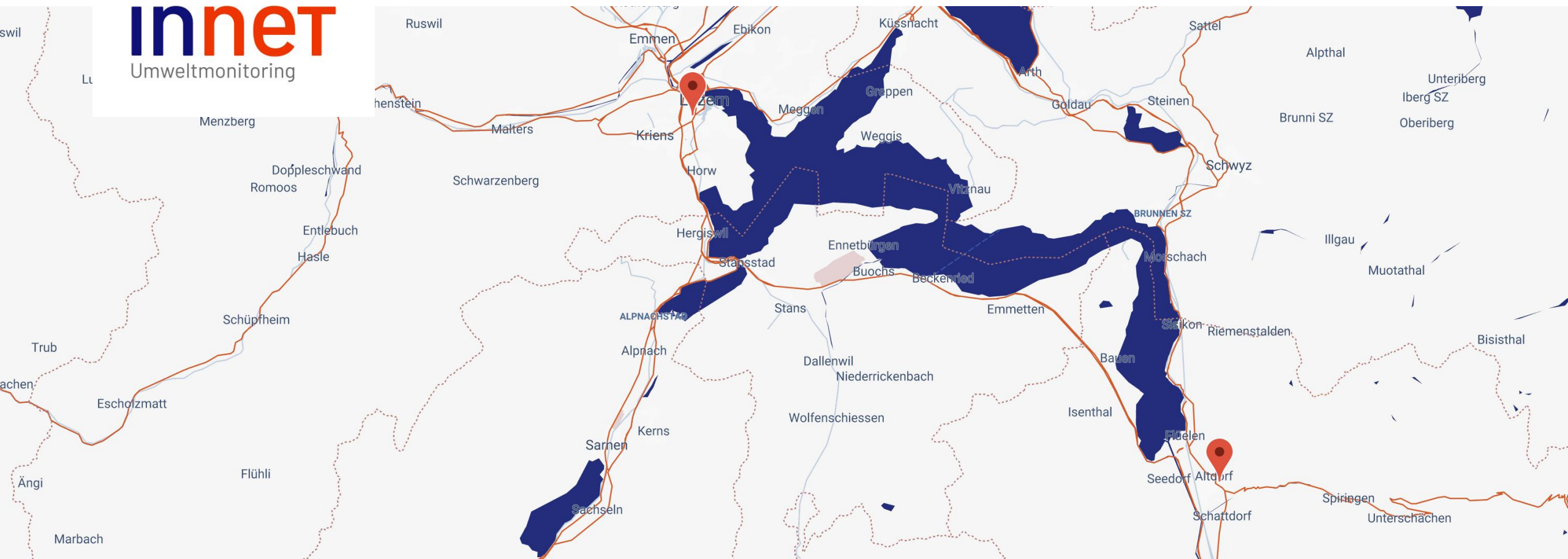
- ▶ Seite zeigen ([WebGIS LU](#)), auf Station klicken
- ▶ dann mit F12 → Network → im Suchfeld "kiwis" eingeben
- ▶ Abfragen bei einer Station machen (auf Abfluss, Pegel etc. klicken) → dann erscheint die Request unten
- ▶ Darauf klicken → dann unter "Request" die API Request ansehen, unter "Response" den Output

The screenshot displays the Kanton LU WebGIS interface for the station 'Meierhofbach, Rotbach - Sempach (LUPQ53)'. The interface includes a map, a legend, and a list of measurement types. The 'Pegel' (Water Level) and 'Wassertemperatur' (Water Temperature) options are highlighted with red circles. The 'Request' tab in the browser's developer tools is also highlighted with a red circle, showing the following JSON data:

```
{
  "id": "timeSeriesValues",
  "datasource": "1",
  "service": "kisters",
  "type": "queryServices",
  "request": "getTimeSeriesValues",
  "format": "dajson",
  "dateFormat": "yyyy-MM-dd'T'HH:mm:ss'000",
  "metadata": "true",
  "timezone": "CET",
  "md_returnfields": "station_id,ts_id,parameter_type_name,stationparameter_name,ts_unitsymbol",
  "returnfields": "Timestamp,Value,Absolute Value",
  "ts_id": "1237010",
  "to": "2024-11-06T12:00:00.000Z",
  "period": "PT24H",
  "kvp": "true"
}
```


Anhang: Abfragebeispiele Station SZHM105

Beschreibung	GET-Abfrage
Auflistung aller Zeitreihen	https://kiwis.innetag.ch/KiWIS/KiWIS?datasource=1&service=kisters&type=queryServices&request=getTimeSeriesList&format=objjson&returnfields=station_id,ts_id,ts_name,ts_type_name,parametertype_name,stationparameter_name,coverage,ts_unitname,ts_unitsymbol,ts_unitname_abs,ts_unitsymbol_abs&station_no=SZHM105&kvp=true
Letzte Messung Abfluss & Pegel	https://kiwis.innetag.ch/KiWIS/KiWIS?datasource=1&service=kisters&type=queryServices&request=getTimeseriesValues&format=dajson&dateformat=yyyy-MM-dd'T'HH:mm:ssXXX&metadata=true&timezone=CET&md_returnfields=station_id,ts_id,ts_name,parametertype_name,stationparameter_name,ts_unitsymbol&returnfields=Timestamp,Value,Absolute Value&ts_id=266621010,266966010&kvp=true
Abfluss- & Pegeldaten Dezember 2023	https://kiwis.innetag.ch/KiWIS/KiWIS?datasource=1&service=kisters&type=queryServices&request=getTimeseriesValues&format=dajson&dateformat=yyyy-MM-dd'T'HH:mm:ssXXX&metadata=true&timezone=CET&md_returnfields=station_id,ts_id,ts_name,parametertype_name,stationparameter_name,ts_unitsymbol&returnfields=Timestamp,Value,Absolute Value&ts_id=266621010,266966010&kvp=true&from=2023-12-01&to=2023-12-31
Anfluss- & Pegeldaten letzte 24 Stunden	https://kiwis.innetag.ch/KiWIS/KiWIS?datasource=1&service=kisters&type=queryServices&request=getTimeseriesValues&format=dajson&dateformat=yyyy-MM-dd'T'HH:mm:ssXXX&metadata=true&timezone=CET&md_returnfields=station_id,ts_id,ts_name,parametertype_name,stationparameter_name,ts_unitsymbol&returnfields=Timestamp,Value,Absolute Value&ts_id=266621010,266966010&kvp=true&period=P1D



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