

— QGIS User Group CH —

Mini-Workshop “QGIS Locator” - 2021-05-12

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What is QGIS Locator?

QGIS Locator is the core search tool inside QGIS found in the bottom left of the status bar.

Quick access via CTRL+K (CMD+K on mac)

The screenshot shows the QGIS interface with a map of a rural area. The Locator search tool is active in the bottom left corner, displaying a list of search results. A blue box highlights the search results list, and a red arrow points to the search input field. A green arrow points to the search results list. A purple arrow points to the magnifier glass icon in the top left of the Locator window. A green arrow points to the delete icon in the top right of the Locator window. A white box with purple text is positioned over the magnifier glass icon. A white box with red text is positioned over the search input field. A white box with green text is positioned over the delete icon. A white box with black text is positioned over the search results list. A white box with teal text is positioned over the search results list. A white box with black text is positioned over the search results list.

Click on magnifier glass icon for quick access to search categories and configuration

Result List

Type here for your search

Click on delete icon to reset search

Result-List automatically unfolds when Locator Search Field is activated

Double click entry you want to display

Locator search categories



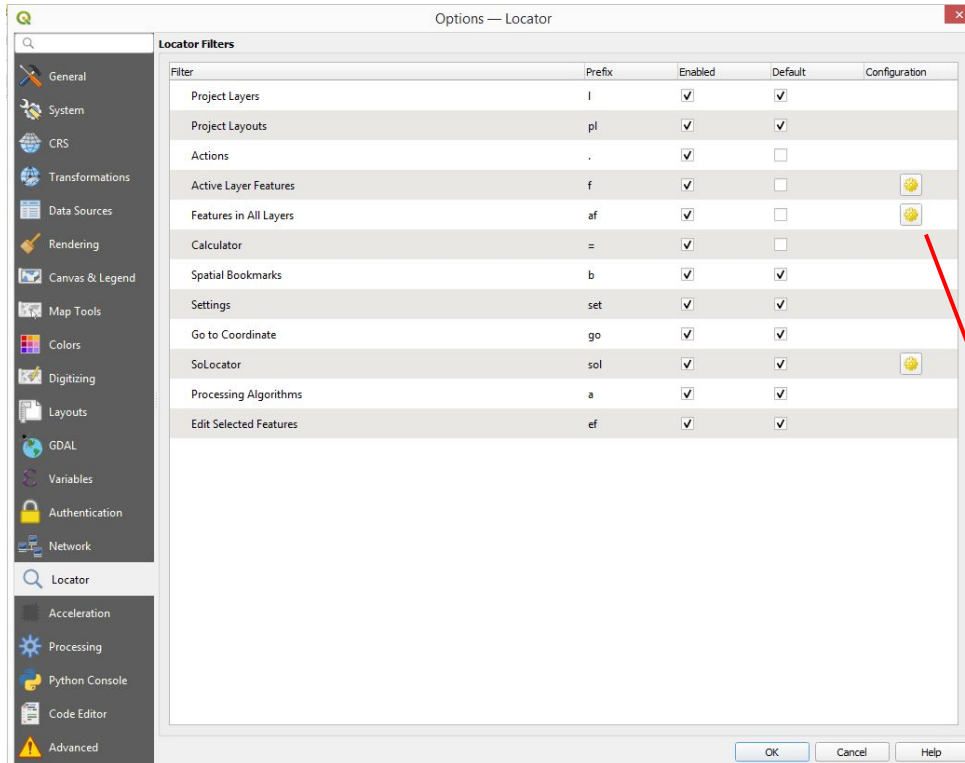
QGIS Locator (by default) can search for the following categories:

- . → actions
- = → calculator (any math formulas)
- a → processing Algorithms
- af → features (objects) in all Layers (search only display field)
- b → spatial Bookmarks
- ef → edit selected features
- f → active layer features (objects) (search in all fields)
- go → go to coordinate
- l → project layers
- pl → project layouts
- set → settings

Locator configuration



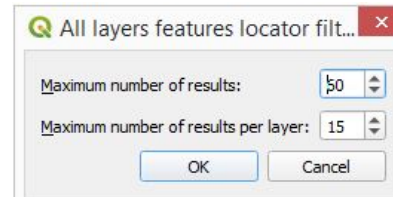
Menu “Settings” → “Options” → “Locator”:



Column “Enabled” enables/disables a certain search category

Column “Default” tells Locator that this category is enabled even if the prefix is not used

Column “Configuration” has additional configuration buttons (cog-wheel-icon) for certain categories



Locator prefixes (for search restrictions)



QGIS Locator search can be restricted with search prefix to a certain category:

The screenshot shows the QGIS Locator search interface. On the left, a list of available search prefixes is displayed, with a red box highlighting the list. The prefixes are: ., =, a, af, b, ef, f, go, l, pl, set, and sol. In the center, a list of search categories is shown, including Actions, Calculator, Processing Algorithms, Features in All Layers, Spatial Bookmarks, Edit Selected Features, Active Layer Features, Go to Coordinate, Project Layers, Project Layouts, Settings, and SolLocator. On the right, the Project Layers panel is visible, showing a list of layers with search results for 'Wasser' restricted to project layers only. The search results are: Wegebau Wege (Strukturverbesserungen), Wasserversorgung Punkt (Strukturverbesserungen), Wasserversorgung Linie (Leitung) (Strukturverbesserungen), Wegebau Wiederherstellung Punkt (Strukturverbesserungen), and Wegebau Brücke und Lehnviadukt (Strukturverbesserungen). A red box highlights the search input field at the bottom right, which contains the text 'l Wasser'.

List of available search prefixes

Example: search for "Wasser" restricted with prefix "l" to project layers only

Locator “Things to know”



Locator searches only in “display field” of all layers
(not all attributes)

Attribute fields can be set to “Not searchable”
 (“Layer properties” → “Manage Fields”)

Layers can be set to “Not searchable”
 (“Project” → “Properties” → “Data Sources”)

Locator searches run “threaded” and don’t
block the UI. Results of multiple locator
plugins may appear at different times/order.

The screenshot shows the QGIS interface with several windows open. A red box highlights the 'Display Name' field in the 'HTML Map T...' window, containing the text 'abc name'. Another red box highlights the 'Data Sources' tab in the 'Project Properties — Data Sources' window. A table within this window shows the 'Layers Capabilities' for various layers, with a red box highlighting the 'Searchable' column.

Layer	Identifiable	Read-only	Searchable	Required
Peaks 4000+	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Peaks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Named Buildings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SAC/CAS Cabins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Administrative Units				
Municipalities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Districts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cantons	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Swisstopo Topo Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Let's play (1/2)



1. Open the "Peaks 4000+" layout (prefix: pl)
2. Find the layer "Districts" (prefix: l)
3. Open the action "GoogleImage" in layer "Peaks 4000+" (prefix: .)
→ after selecting the action, pick a peak feature on the map
4. Select the layer "Peaks 4000+" and find the "Dufourspitze" (prefix: f)
5. Search for peaks with "gipfel" in their "name", but not in "peak_type" (prefix: f @attribute)

Let's play (2/2)



6. Find a feature with name "aletsch" in any layer (prefix: af), right click on the result to open form
7. Calculate "9^3" (prefix: =)
8. Go to the bookmark "Solothurn (Gemeinde)" (prefix: b)
9. Find the settings for "Digitizing" (prefix: set)
10. What is at coordinates "2600000 1200000" (prefix: go)
11. Find the processing algorithm "buffer" (prefix: a)

Locator Plugins



QGIS Locator can be extended with plugins that allow to integrate online gazeteers or integrate with existing online data sources or GDIs.

Examples (see <https://plugins.qgis.org/search/?q=Locator>):

- Swiss Locator (CH)
- French Locator Filter (F)
- PDOK Locatieserker Locator Filter (NL)
- Geoportal LU (LU)
- Nominatim Locator Filter (International)
- OSM place search (International)
- Google Maps Geocoder (International, requires Google Maps API key)
- TomTom Locator Filter (International, requires TomTom API key)
- Geomapfish Locator (integrate with your Geomapfish search service)
- Cantons: SoLocator, ShLocator

Swiss Locator



- 3 filters bundled in the plugin:
 - Locations
 - Layers (Swisstopo + opendata.swiss)
 - Features

- Language shall be set in the settings

Swiss Geoportal locations	chl	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Swiss Geoportal / opendata.swiss WMS layers	chw	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Swiss Geoportal features	chf	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Swiss Locator



- Search for a city or a canton (prefix: chl)
- Search for the “forest reserves” layer in your own language (prefix: chw)

Known issues:

- Crash when enabling “show map tip”
- Now that geo data has been made publicly available, we should use WMTS layers

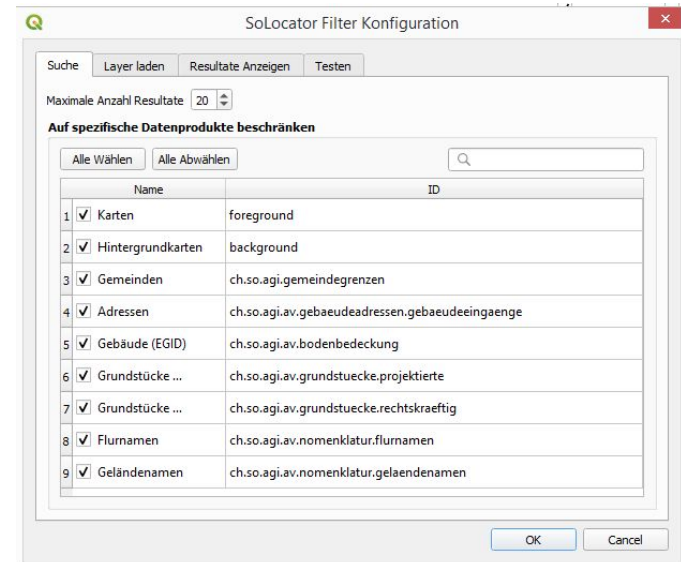
SoLocator



Uses “search” service and “dataprodukt” service of GDI Canton Solothurn
<https://github.com/opengisch/solocator/>

Allows to search for

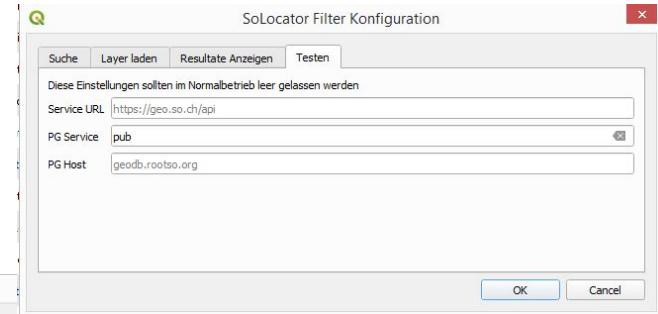
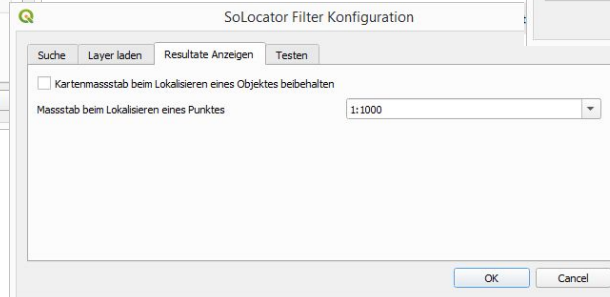
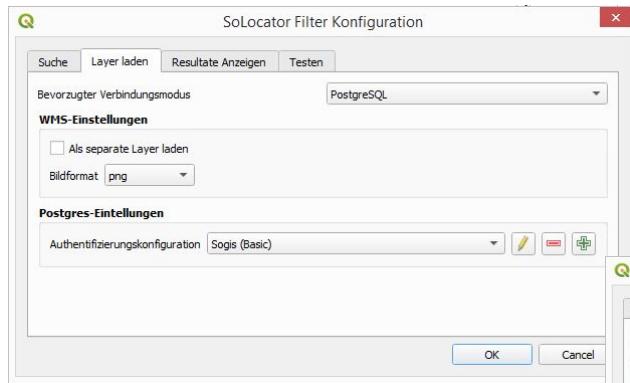
- Maps (Karten (data sets)) - Foreground (placed above active layer, or inside active group)
- Base Maps (Hintergrundkarten) - Background (placed on bottom)
- Municipalities (Gemeinden)
- Addresses (Adressen)
- Buildings (Gebäude (EGID))
- Parcels projected (Grundstücke projiziert)
- Parcels existing (Grundstücke rechtskräftig)
- Field Names (Flurnamen)
- Topo Names (Geländenamen)





Maps (foreground) are loaded as PostgreSQL layers (fully styled, SVG files embedded) or alternatively (Shift double click) as WMS layer.

Can be switched to “test” and “integration” environment



Debugging Network Requests



Menu "View" → "Panels" → "Debugging/Development Tools"

Debugging/Development Tools

Filter requests

Requests

- 30 GET https://geo.so.ch/api/search/v2?searchtext=Bah&filter=foreground,background,ch.so...
- 31 GET https://geo.so.ch/api/search/v2/?searchtext=Bah&filter=foreground,background,ch.so...
- 32 GET https://geo.so.ch/api/search/v2?searchtext=Bahn&filter=foreground,background,ch.so...
- 33 GET https://geo.so.ch/api/search/v2/?searchtext=Bahn&filter=foreground,background,ch.s...

Request

- Operation : GET
- Thread : 0x000000916a91ab40
- Initiator : unknown
- Cache (control) : Always load from network, do not check cache
- Cache (save) : Result cannot be stored in cache

Query

- searchtext : Bahn
- filter : foreground,background,ch.so.agi.gemeindegrenzen,...
- limit : 20

Headers

- User-Agent : Mozilla/5.0 QGIS/31606

Reply

- Status : 200
- Cache (result) : Read from network

Headers

- Date : Tue, 11 May 2021 10:05:47 GMT
- Server : Kanton Solothurn
- Content-Type : application/json
- Content-Length : 7975
- Access-Control-Allow-Origin : *
- Keep-Alive : timeout=10, max=299
- Connection : Keep-Alive

Press "Record" button to start recording requests

Use "context menu" on each request to copy request

33 GET https://geo.so.ch/api/search/v2/?searchtext=Bahn&filter=foreground,background,ch.so...

Request

- Open URL
- Copy URL
- Copy As cURL
- Copy as JSON

Operation : GET

Thread : 0x000000916a91ab40

Initiator : unknown

Cache (control) : Always load from network, do not check cache

Cache (save) : Result cannot be stored in cache

Query

- searchtext : Bahn
- filter : foreground,background,ch.so.agi.gemeindegrenzen,...
- limit : 20



Thanks for your attention !