Canadian Rail Atlas Cheat Sheet

Contents

Logging in

Public (no login)
- Link from "RAC Initiatives" webpage (https://www.railcan.ca/rac-initiatives/canadian-rail-atlas/)

RAC members and staff:
- Log into the RAC members site, select "Resources", then select "Portal Login" under "Canadian Rail Atlas" (https://www.railcan.ca/members/resources-2/).
- Alternatively, you can go straight to the Members Atlas link: https://rac.jmaponline.net/canadianrailportal_w/login.jsp
- If you do not have an Atlas login, have lost your login, or don't remember your password, please send an email to Jonathan Thibault (jthibault@railcan.ca) to request log in credentials.

Base Maps

In the bottom left corner, click on your base map of choice: OpenStreetMap; Google Maps Roadmap, Terrain, Satellite or Hybrid; or, RAC Base Map
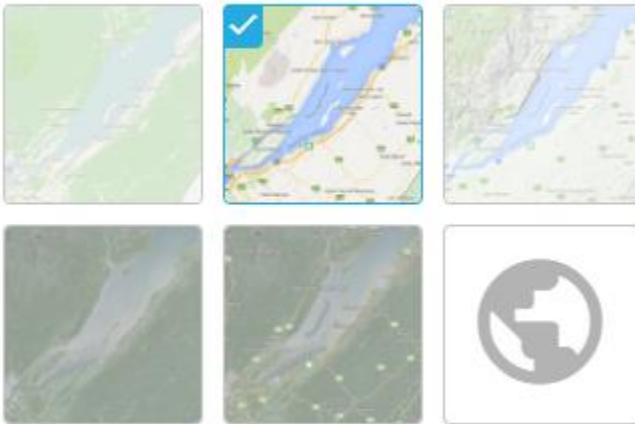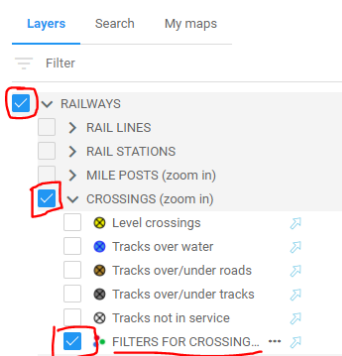
Layers

There are a few things to note that will make it easier to navigate the layer data

- **Layer visibility:** if the text of a layer is faint, it means that data is not displaying. To view the data, you must zoom in.
- **White vs grey background:** if the layer name has a grey background, it does not contain data itself, if a layer has white background, it contains data. To view the data for layers with white backgrounds, all grey checkmarks in the hierarchy above must be selected.
- **Viewing the full name of the layer:** hover over the text and wait for the full layer name to display
- **Three dots:** click the three dots to see more information on the layer
- **Right arrow + magnifying glass:** adjusts the view (zoom and navigation) to display all of that layer's data on the map
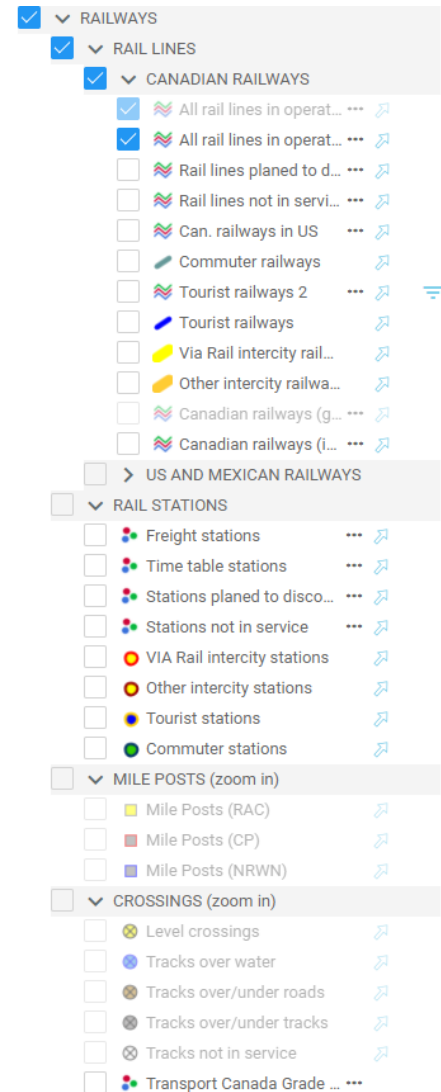- **Right arrow + three horizontal lines in shape of upside-down triangle:** brings you to the filtering options

Filterning layer data

The filtering function allows users to view the data that they are most interested in; improving the ability to analyse data, export information, and create custom maps.

1. Navigate to the layer that you wish to filter, select the layer. Ensure that all checkboxes in the hierarchy are selected.

2. Hover your mouse over the layer and you'll notice a right pointing arrow (not the blue upward right pointing arrow) pop up beside the layer name, click the arrow and a magnifying

glass will appear. If three horizontal lines in the shape of an upside-down triangle also appear, it means that you are able to filter that layer.

3. Click on the three lines and you will be brought to the Filter Configuration.
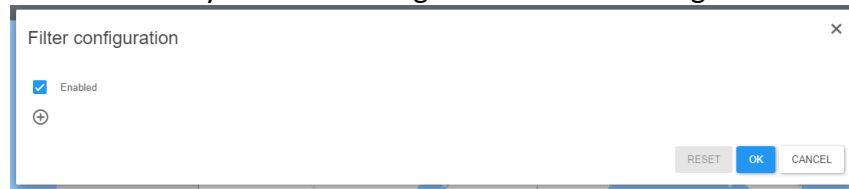
4. Ensure that the filters are enabled by the "Enabled" checkmark, and then select ⊕ . The user is provided with options for how to filter. For example, if you were interested in crossings in a specific municipality, you could select "EQUALS", "MUNICIPALITY", and then select the municipality of interest and save. You may filter using more than one attribute, but note that data will only display if all attributes are satisfied.
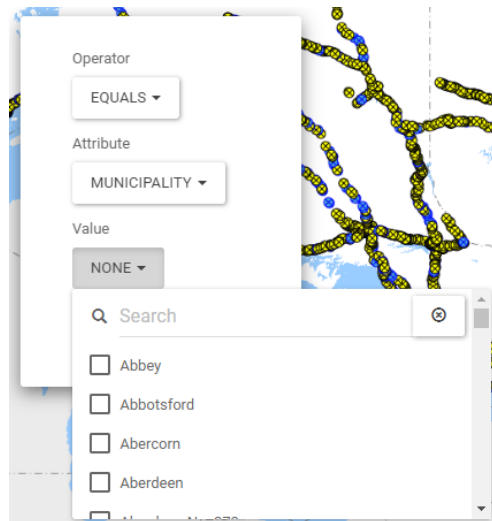

5. If you want to deactivate the filters, you can deselect "enabled" to temporarily deactivate all filters (you can reactivate easily by selecting enable); or you can click ⊖ to remove a filter altogether.

Troubleshooting
- To filter Canadian Railways, go to the layer "FILTERS FOR CANADIAN RAILWAYS". There are no filters on the other "Canadian Railways" layers. To filter crossings, go to the layer "FILTERS FOR CROSSINGS".
- If a layer's data is split across two layers based on the level of zoom, you will need to apply that filter to both layers so that your filter is not lost when you zoom in/out. For example, "FILTERS FOR CANADIAN RAILWAYS" and "FILTERS FOR CANADIAN RAILWAYS (ZOOM OUT)" would each require a filter. This is also the case for US and Mexican railways.

- You can set multiple filters across different attributes. For example, in the layer "FILTERS FOR CANADIAN RAILWAYS", you can filter by attributes "CARRIERCOD" and "CARRIER_EN". *Data will only display if all filters are satisfied*. If you would like to see CN and CP data, you would have to specify using a single filter, and avoid a mistake like the one shown below. No data is displaying because both the carrier code of CN and carrier name CP would need to be satisfied.
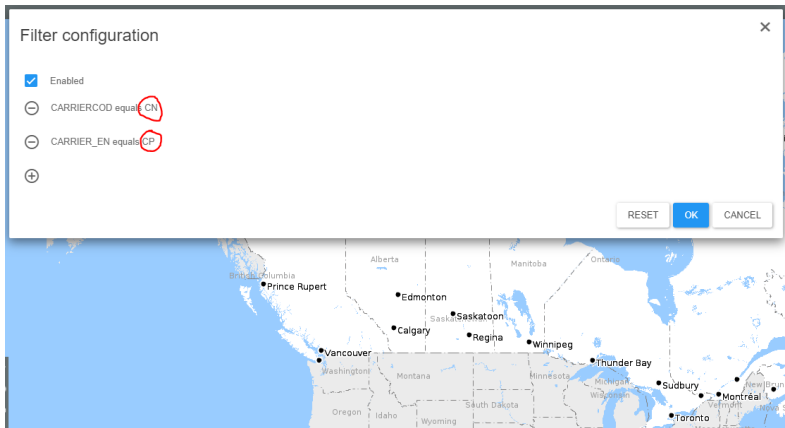
CN and CP must both be selected using a single filter, as shown below:
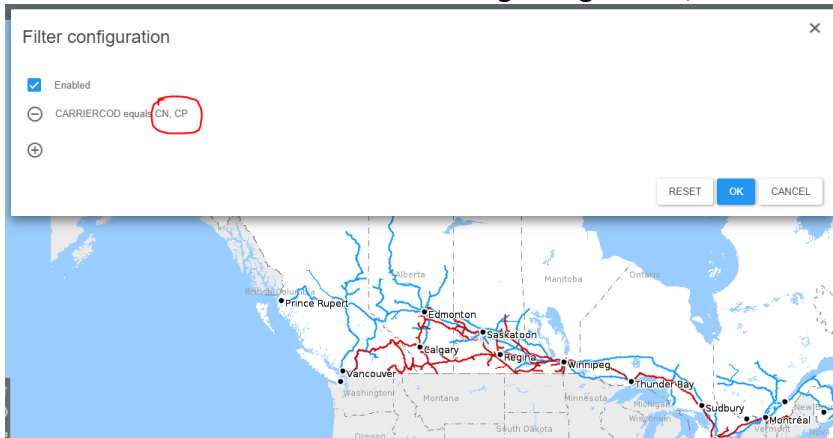
Toolbars

1. Map Navigation Tools
2. Geographic Information Tools
3. Functionality Tools

Map Navigation Tools

Initial View (North America)

Previous View

Current Position: Enable geolocation on your web browser, then select the "Current Position" icon. The icon will be activated and turn blue, a blue dot will appear on the map with your location

Zoom in

Zoom out

Geographic Information Tools

Custom Zoom
- Click on the 1:## ### ### ratio in the bottom right corner and type in your custom zoom preference, select "GO"
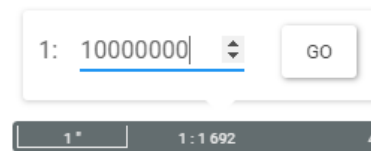
Coordinates
- Click on the coordinates in the bottom right corner
- Set the projection to WGS 84 (long/lat)

- Input coordinates (note that Google lists coordinates as lat/long, so you must swap the order), select "GO"
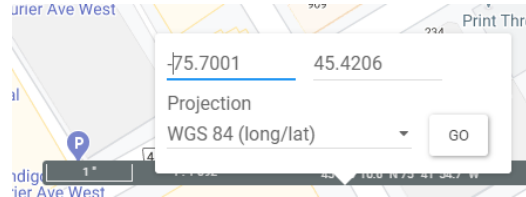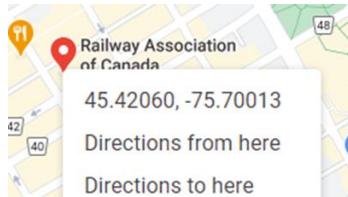
Functionality Tools

Show/hide menu

Selection tools

Measurement tools

Information reports

Google Street View

Google Directions

Annotations

Print Map

Overview Map

Full Screen

Share Features

Options

Show/hide menu; Information Report; Google Street View; Google Directions; Overview Map; Full Screen; Share Features; Options

These tools are relatively straightforward

- Show/hide menu: Click to show or hide the menu (layers, base maps, etc.)
- Information Report: Click to activate, then simply point and click on the location of interest to obtain the report
- Google Street View: Click to activate, zoom in to desired location, point and click (note that not all locations are available)
- Google Directions: Click , then insert departure and arrival addresses
- Overview Map: Click to display an overview of the map, the grey rectangle shows the view displayed on the screen within the broader geography. You can move the grey rectangle to navigate on the map.

- Full Screen: Click ⤢ to enter/exit full screen view
- Share Features ⤳:
    - obtain a shareable "link to this map"
    - "Embed Map" to share on a website
    - "Create Image" of your map in one click
    - **Troubleshooting**: "Embed Map" and "Create Image" are not available when using a GoogleMaps basemap
    - The Facebook, LinkedIn and Twitter share functions allow the user to post a link to the Atlas. The link that is shared with these tools points to the Atlas deployment with the default configuration for the layers (not the custom configuration that the user has created).
    - If you would like to share your *custom map*, use "Create Image" or use a snipping/screenshot tool and save the image as a file (PNG, JPG, etc.), and share the file.
- 👤 Options:
    - Preferences: Set your preferences for distance units (kilometres, miles, etc.), display units/coordinate values (degrees, miles, etc.), and map rotation.
    - Help to access the online User Manual
    - Change password
    - Logout

Print Map

- Click 🖨
- You may enter a title and subtitle for your map
- Select paper format and orientation
- Selection options that you would like to include: date; map scale; and/or North arrow
- Troubleshooting:
    - The Print Map function does not work when using the "OpenStreetMap" base map. I recommend using "Create Image" or a screenshot/snipping tool if this is your desired base map.
    - The preview does not display correctly when using either of the Google Maps base layers; however, once you click "Create PDF" the map will display correctly.

Selection Tool

First, activate the desired selection tool by clicking on it. The tool is activated when the arrow turns from white to blue. To deactivate the tool, click on the arrow again.

The selection tool is used to make a spatial selection of layer data, which can then be analyzed and exported into various types of reports.

- Punctual Selection: point and click once
- Linear Selection : click; move cursor; click (can make multiple lines, double click to finish selection)
- Rectangular Selection : click, move cursor, click
- Polygonal Selection : click, move cursor, click (can create multiple edges, double click to finish selection)
- Circular Selection : click at centre of desired selection, move cursor outward, click

Measurement Tool

First, activate the desired measurement tool by clicking on it. The tool is activated when the ruler turns from white to blue. To deactivate the tool, click on the ruler again.

- Distance Measurement: click; move cursor; click (can make multiple lines, double click to finish selection)
- Surface Measurement: click, move cursor, click (can make multiple edges, double click to finish selection)
- Circular Surface Measurement: click at centre of desired selection, move cursor outward, click
- To erase all measurements, click

Annotations

1. Activate the desired annotation tool by clicking on it (freehand , text , point , line , rectangle , polygon , or circle)
2. Go to "style" and select the desired fill, line, and/or text style
3. Draw/type your annotation

To modify annotations:
1. Click "selection" and then select the annotation on the map that you would like to modify;
2. Click "style" and make desired changes to the fill, line, and/or text
3. Click "modification" to apply the change

To erase annotations:
- To erase all annotations: click "delete" and confirm "erase all annotations"

- To erase a single annotation: click "selection" ⚲ and then select the annotation on the map that you would like to erase; then click "delete" ◇ and confirm "erase 1 selected annotation(s)"

Exporting Layer Data

- In the menu on the left, activate the layer data that is of interest
- Using the appropriate selection tool (see *Toolbars > Functionality Tools > Selection Tool*), select the spatial range of the data that you would like to export
- If there are multiple layers of data in the selected area, they will display individually at the bottom of the screen (see example below, which includes 4 layers)
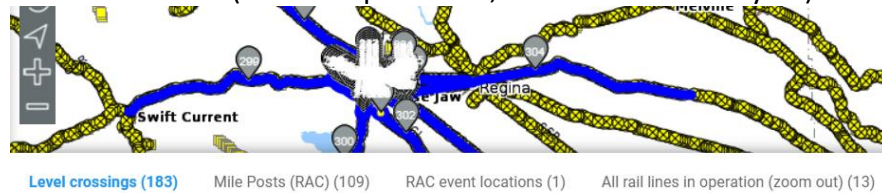
- Select the layer that you would like to extract by clicking on it (example above selected "Level crossings"), only 1 layer of data can be extracted at a time.
- You can export the data into an Excel file by simply selecting "Export as Excel File" 🖽
- To customize the report or dataset that you export, click "Request Selection Report" ⚲
- From here, you can either "Print Report" 🖶 ; "Export Report" ⬛ in the file type of your choice (DOCX, PDF, etc.); or "Export Data" ⬛
  - When using "Export Data", you have the option to select the attributes (columns) of interest by using the right and left arrows.
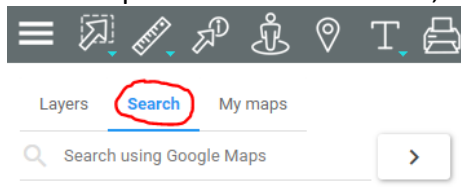
Troubleshooting
- Reduce amount of information selected
- Ensure layer is "selectable". In the layer menu, ensure that the upward-right pointing arrow beside the layer name is activated in blue.
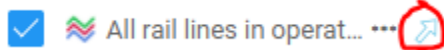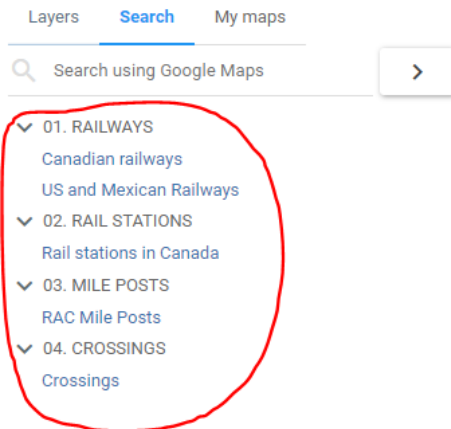

Search

- At the top of th menu on the left, click "Search"

- You can search addresses using Google Maps; or search the layer data using the links below

- Select the layer that you would like to search (e.g., Canadian railways)
- Select the attributes that you would like to search for. You can enter as few or as many attributes as you like. Note that all attributes must be satisfied in order to locate the data.
  - In the example below, notice the error on the left. Since no railway satisfies both criteria, the search will yield no results. If you would like to search multiple railways, you must use one attribute field (either name or code), and insert multiple carriers in that field (as shown on right).
  - This principle applies for all searches and filters.

- After selecting the attributes, click "Search", and the relevant data will be displayed and selected.
- You may then follow the steps in the section above, *Exporting Layer Data*, to export the information.

My Maps

The "My Maps" function allows the user to save custom maps, and eliminates the need to recreate the specific selections the next time they log into the Atlas.

1. Select the desired base map; layer data; zoom level; and spatial positioning
2. Select "My Maps"
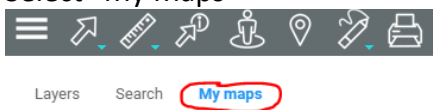
3. Click to save your map
4. Give your map a Title and Description (description is optional)
5. Next time you log in, you can simply go to "My Maps" and open the map that you created previously. The layer setting will also adapt to reflect the map that you have selected.