EXPLORE MAP HELP

Explore by Location contains a basemap, a set of data layers, and navigation tools to zoom into, and pan around the map. In addition to displaying your Area of Interest, you can view and query a number of natural resource data layers, and run an Area of Interest report.

Please refer to the Known issues document for current issues and work-arounds.

The following documents can be printed for your reference:

- Map Tips
- Quick reference guide

For quick navigation to your topic of interest search this document using **CTRL-F9** on the appropriate topic next to each of the icons shown below.

Navigation

 Zoom in
 Zoom out
 Zoom to BC
 Zoom to previous
 Zoom to Next
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Drawing Tools

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Also see Base Map Chooser and Concepts

Zoom In

Click to zoom the map in by one scale increment.

Zoom out

Click to zoom the map out by one scale increment.

Zoom to BC

Click to zoom the map out to the extent of BC

Zoom to Previous

Click to zoom to the previous map extent

Zoom to Next

Click to zoom to the next map extent

Navigation

Allows the mouse to be used to zoom and pan the map.

- To zoom in, double-click the mouse.
- To pan, press the mouse and drag.
- To zoom to an extent, hold Shift and drag the mouse.

Search

Click to display the **Search for Location / Feature** panel.

Search For Location

Search for a geographic location defined by a placename, address, mapsheet or coordinate.

The search type **Auto** automatically determines the location type from entered text, or a specific location type can be selected from the drop-down.

Locations are entered in the following ways:

- **Coordinate**
  - *Geographic* - as Lat,Lon or Lon,Lat. Either Decimal degrees (DD) or Degrees-Minutes-Seconds (DMS) can be used.

DD Example: *49.5, -125.4*
DM Example: *49 30', -125 20'*
DMS Example: *49 30' 45", -125 20' 30"*

- *BC-Albers* - as X Y
  Example: *1047118 495805*

- *UTM* - as X Y and Zone number
  Example: *329751 5483095 zone 10*

- **Mapsheet** name, in one of the following systems:
  - BCGS 1:20,000
    Example: *92B053*

  - NTS 1:50,000
    Example: *92B05*

  - NTS 1:250,000
    Example: *92B*

- **Placename** or locality.
  Examples: *"Kamloops", "Trout Lake"*

- **Address** as a street number and name, with optional city.
  Example: *"1000 Douglas St"*

  Street intersections are entered as "*name1* and *name2*".
  Example: *"Fort and Cook"*

  Placename and address matching is case-insensitive and supports fuzzy matching.

  Once the location type has been determined, Search Autocomplete shows matching location(s) in a list as text is entered.

- Use the arrow keys or scroll bar to scroll through the locations
- Click on a location name to zoom to it.
- Hit Enter to zoom to the highlighted location
- Click to zoom to the highlighted location
- Click to clear the search.

Search For Features

Search for features on a layer spatially and by attribute value.

- Select a layer to search
- Choose whether to limit the search to within the **visible extent** of the map, or to search the entire layer

- Select the maximum number of features to report. Layers may have very large numbers of features, so the maximum number is limited.
- Add an attribute condition by selecting an attribute to filter on
- Select the comparison operator for the condition
  - Operator **is EQUAL to**, **is LESS than**, **is GREATER than** are *case-insensitive*
  - Other operators are *case-sensitive*
- Enter a value to be used in the condition

More than one attribute condition can be specified. Conditions are ANDed together.

- Click to add a new condition to the search criteria
- Click to remove a condition

When the Search layer and condition is specified, the search can be performed

- Click to search for features matching the search criteria

The result features are displayed in the **Searched Features** sidepanel.

- Click to expand features to show attribute names and values.
- Hover over a feature title to highlight it on the map.
- Click a feature title to zoom to it.
- Click to copy the feature as an AOI geometry.

Bookmarks

Click to display the Bookmarks panel.

Bookmarks are named map extents which can be zoomed to. Bookmarks are saved in browser local storage.

- Enter a new name and click to add a Bookmark.
- Hover over a Bookmark entry to see its extent.
- Click a Bookmark entry to zoom to it.
- Click to delete a Bookmark.

AOI Geometry Toolbar

Click to display the **Area Of Interest Geometry** toolbar. This provides tools to create and manipulate geometry.

AOI Metrics

This panel is displayed when the AOI Toolbar is active.

It shows the **Count**, **Area** and **Perimeter** of the AOI geometries.

It lists the AOI geometries, and allows managing them with the following controls:

- Hover over a geometry to highlight it
- Click a geometry to zoom to it
- Click to set a geometry as the Primary
- Click to delete a geometry

Zoom to AOI Geometry

Click to zoom the map to the current AOI geometry set.

Draw Rectangle

Draw a rectangle by clicking the mouse to set a corner and dragging out the extent. The rectangle is added as an AOI geometry.

Draw Polygon

Draws a polygon

- Click the mouse to create vertices.
- Double-click to complete the shape and add it as an AOI geometry.
- To draw using stream digitizing, hold Shift, click and drag the mouse.
- To zoom in and out while drawing use the mouse wheel
- To pan while drawing hold Ctrl, click and drag the mouse.

Draw Line

Draws a line (linear path).

- Click the mouse to create vertices.
- Double-click to complete the shape and add it as an AOI geometry.
- To draw using stream digitizing, hold Shift, click and drag the mouse.
- To zoom in and out while drawing use the mouse wheel
- To pan while drawing hold Ctrl, click and drag the mouse.

Draw Circle

Draws a circle.

Click and drag the mouse to place the centre of the circle and define its radius.

Edit AOI

Edits ***AOI geometries*** by adding, moving or deleting vertices.

- Click on an AOI geometry to edit it. The edit geometry highlights. Vertex handles appear when the mouse is hovered over segments.
- To move a vertex, hover over the vertex and drag the vertex handle with the mouse.
- To add a vertex, hover over an edge and drag the tentative vertex handle.
- To delete a vertex, hover over it and press Delete.
- To stop editing and keep the modified geometry, click anywhere other than an edge of the geometry.

Clear AOI

Click to clear all AOI geometries.

Undo Change

Click to undo a change to the AOI geometry.

Redo Change

Click to redo a change to the AOI geometry.

COGO

Click to display a panel to enter, display and edit geometry in ***COGO*** (Coordinate Geometry) format.

Import AOI

Click to display a dialog to import geometries from a variety of spatial formats. The data format is auto-detected from the file type or data content.

Import geometry data in the following ways:

Tab From File

- Click Choose File to choose a file to upload

Tab From Data

- Enter data into the text area, or paste data using CtrlV

The data projection (***coordinate system***) is auto-detected. If the coordinate system is UTM, the UTM Zone must be provided on the **Choose Projection** dialog. Choose the zone from a list, or by uploading a PRJ file.

- Click Details... to show the format, coordinate system and number and size of features read.
- Click Import to import the data
- Otherwise click Cancel to close the dialog

Export AOI

Click to display a dialog to export geometries in a variety of spatial formats. Geometry is exported in the geographic coordinate system (WGS84).

- Edit the **Description** if needed (it is used in some but not all formats)
- Choose the **Format** to use for export. Available formats are:
  - **KML** - Keyhole Markup Language, as used in Google Earth
  - **GPX** - GPS Exchange format
  - **GeoJSON** - Javascript notation
  - **Well-Known Text** - WKT, a widely-used text geometry format
  - **Simple Text** - a text listing of the geometry coordinates
  - **SHP** - shapefile
  - **GeoMark** - the URL of a BC Government GeoMark created for the geometry
- Click Export to display the exported geometry in the selected format in the **Data Text** textbox.
- The exported text can be copied using Copy or Ctrl C. The copied text can be pasted into an external application for use.

Geometry Calculator

Click to display a panel to perform calculations on geometries.

The display shows the Primary and Secondary AOI geometries defined.

- Hover over a geometry to highlight it
- Click a geometry to zoom to it
- Click to set a geometry as the Primary
- Click to delete a geometry

Memory Save

Click to save the Primary geometry to memory.

Memory Recall

Click to recall the geometry from memory as a new geometry.

Memory Clear

Click to clears the geometry memory.

Union

Click to computes the geometric union of all geometries. The geometric union merges all geometries into a single geometry. The result geometry can be edited or have other calculations performed on it.

Intersect

Click to computes the geometric intersection of all geometries. The intersection is a geometry representing the common areas or lines of all the input geometries. The result geometry can be edited or have other calculations performed on it.

Subtract

Click to subtract the secondary geometries from the primary geometry. The result is a geometry which contains all the areas/lines/points which occur in the primary geometry but not in the secondary geometries. The result geometry can be edited or have other calculations performed on it.

Buffer

Computes a buffer polygon around the primary geometry to a specified distance. If the buffer distance is positive, the buffer expands (dilates) the geometry; if negative, it contracts (erodes) it.

- Enter the buffer distance (in metres). The distance can be either positive or negative.
- Click  to replace the geometry with the computed buffer

Simplify

Reduces the number of vertices in a geometry while maintaining the approximate shape of the original geometry. Uses the Douglas-Peucker simplification algorithm, which requires a distance tolerance to control how many vertices are eliminated.

- Enter a simplification distance tolerance (in metres)
- Click  to replace the geometry with the simplified version

Validate Topology

Click to check if the primary geometry is topologically correct. This detects if polygons contain self-intersections or overlaps. If a topology error is found an indicator is displayed showing the location of the error.

Close Polygon

Click to close a linestring to form a polygon.

Clean Polygon

Click to clean a polygonal geometry. This ensures that the geometry is a topologically valid polygon.

- Dangling linework is closed and trimmed
- Self-intersections are removed
- Partially contained holes are excised

Markup

Click to display a toolbar to create Markup on the map.

Zoom to Markup

Click to zoom to the Markup geometries.

Draw Rectangle

Draw a rectangle by clicking the mouse to set a corner and dragging out the extent.

Draw Polygon

Draws a polygon.

- Click the mouse to create vertices.
- Double-click to complete the shape.
- To draw using stream digitizing, hold Shift, click and drag the mouse.
- To zoom in and out while drawing use the mouse wheel
- To pan while drawing hold Ctrl, click and drag the mouse.

Set the symbology in the **Style** panel.

Draw Circle

Draws a circle.

- Click to set the centre of the circle.
- Drag and release to create the circle.
- Set the symbology in the **Style panel**

Draw Line

Draws a line (linear path).

- Click the mouse to create vertices.

- Double-click to complete the shape.
- To draw using stream digitizing, hold Shift, click and drag the mouse.
- To zoom in and out while drawing use the mouse wheel
- To pan while drawing hold Ctrl, click and drag the mouse.

Set the symbology in the **Style** panel.

Draw Point

Draws a point symbol with an icon, with an optional label and coordinate value.

- Click the mouse to create a point
- Optionally, enter the label text in the **Style panel**
- Optionally, choose a Coordinate Format to display the location of the label point

Set the symbology in the **Style** panel.

Draw Label

Draws a label at a location, with an optional coordinate value.

- Click to set the location of the label
- Enter the label text in the **Style** panel
- Optionally, choose a Coordinate Format to display the location of the label point.

Set the symbology in the **Style** panel.

Edit Markup

Click to allow selecting and editing Markup objects.

- Click on a Markup object to select it for editing.
- Drag the vertex control points to change the location of vertices
- Drag the centre control point to move the object
- Click outside the selected object to stop editing it.
- Change the object symbology in the **Style** panel

Delete Markup

Click to delete the currently selected Markup object.

Clear Markup

Click to clear all Markup objects.

Markup Colour

Click to choose the colour for Markup objects.

Markup Line Style

Click to choose the line style for Markup shapes.

Markup Symbol

Click to choose the symbol for Markup points.

Markup Symbol Size

Click to choose the size for Markup symbols.

Markup Label Font

Click to choose the font for Markup labels.

Markup Label Size

Click to choose the text size for Markup labels.

 Selection Toolbar

Click to display the Selection toolbar.

The selection set can contain features from multiple layers.

Choose the current selection layer from the layer dropdown. The layer must be visible at the current scale to be selected from.

 Zoom to Selection

Click to zoom to the current selection.

 Select by Box

Click and drag a box to add features from the current selection layer to the current selection.

 Select by Polygon

Click out a polygon to add features from the current selection layer to the current selection. Double-clicking closes the polygon and queries the selection layer for features.

 Unselect by box

Click and drag a box to unselect features.

Unselect All

Click to unselect all features in the current selection.

Select by AOI

Click to select features using the current Primary AOI as the query polygon.

Display Selected Features

Click to display the **Selected Features** panel and view or manage the current selection set.

- Hover over a Layer Name to highlight all selected features in that layer
- Click a Layer Name to zoom to the selected features in that layer
- Hover over a Feature Name to highlight it on the map
- Click a Feature Name to zoom to it
- Click to copy a feature as an AOI geometry
- Click to unselect a feature
- Click to expand layers and features to show attributes

Measure Toolbar

Click to display the **Measure** toolbar. This provides tools to measure area and distance.

If an AOI geometry is present, the measure shape is initialized from it.

Measure Area

Click to draw an area to measure. Double-click to finish drawing. The area (in hectares) and perimeter (in kilometres) is displayed while drawing.

Measure Distance

Click to draw a linestring to measure. Double-click to finish drawing. The distance (in kilometres) is displayed while drawing.

Clear Measurement

Click to clear the current measurement.

Identify

Click a point on the map to Identify features at that point.

- Choose from the drop-down to identify all visible layers, or a specific layer
- Click on the map to perform an Identify query at that location
- Identify queries may take some time to process. To cancel a query, click
- Drag the map to pan it, and use the mouse wheel to zoom

Identified features are shown in the **Identify** sidepanel.

- Click to expand features to show attribute names and values.
- Hover over a feature title to highlight it on the map.
- Click a feature title to zoom to it.
- Click to copy the feature as an AOI geometry.

Add Layer

Click to display a panel to add a map layer from a local data file. The layer title and styling can be specified. The new layer is displayed on the map positioned above the existing map layers.

Add a layer in either of the following ways:

Tab From File

- Click Choose File to choose a file to upload

Tab From Geomark

- Paste a GeoMark URL or ID into the text area using Ctrl V

The data projection (***coordinate system***) is auto-detected. If the coordinate system is UTM, the UTM Zone must be provided on the **Choose Projection** dialog. Choose the zone from a list, or by uploading a PRJ file.

Title

Enter a title to use for the layer.

Style

Choose a colour to use for styling the layer.

- Click Details... to show the format, coordinate system and number and size of features read
- Click Add to add the data as a new layer
- Otherwise click Cancel to close the dialog

Clear Highlight

Click to remove all highlighting from map. If any features on map have been highlighted, click this button to remove the highlights.

Save / Load Session

Click to display a dialog to save and load map sessions. Sessions are stored in *.session files.

When a session is loaded it replaces ALL user data layers which may be present.

Tab Save

- Edit the session file name if desired
- Click Save to save the session to a *.session file

Tab Load

- Click Choose File to select a *.session file
- Click Load to load the session

Sessions contain the following data:

- Base Map
- Map Extent
- Layer List settings
- Imported Layers
- AOI geometry
- Markup

Layers

Click to display the **Layers** panel. It displays the active Overlays and Layers.

Overlays

An Overlay is a set of layers accessed from a single map service or data source.

- Click ▲/ ▼to hide and show the overlay layers
- Click the ☐ checkbox to control visibility of the overlay
- Control-Click or Shift-Click the ☐ checkbox to control the visibility of all layers within the overlay
- Click the **Overlay name** to display the **Overlay** panel
  - Drag the slider to change the opacity of the overlay

Layers

A Layer is a styled feature class displayed on an overlay.

- Click the checkbox to control layer visibility
- If the layer name is in *italics* the map scale is not in the defined scale range for the layer, and the layer is not displayed on the map. Zoom in or out to see the layer.
- If the layer name appears as a link, then metadata is available for the layer

Layer panel

Click the layer name or the ›icon to display the **Layer panel**. The Layer panel provides controls to work with the layer.

- Click Layers to return to the **Layers** panel
- Click to display layer metadata in a new window
- Click to zoom to a scale at which the layer is visible, or to the data extent for the layer
- Click to remove the layer

Legend

Click to display the Legend panel. The Legend displays style symbology for visible layers.

Print

Click to display the Print dialog.

- Enter the printing parameters:
  - **Title** - title to appear on the printed map
  - **Notes** - notes to display on the printed map
  - **Layout** - page layout for the map. **Local** layouts use the browser printing facility (which may also allow saving to PDF). **Server** layouts are rendered into a PDF which can be downloaded and saved or printed

  Available for some layouts:

  - **Scale** - the scale at which to print the map
  - **Resolution** - the resolution (DPI) of the map image

- To print the map, click Print.
- To cancel a print request, click Cancel.

Coordinate Display

Displays the mouse location in the current coordinate format.

- Click ▲ to show all coordinate formats.
- Click a format to make it the current display.
- Click ▼ to show only the current format.

Coordinate Lock

Click to lock or unlock the Coordinate Display. When the display is locked, it will refresh only when the mouse is clicked on the map. This allows capturing the coordinates of a particular map location.

Graticule Control

Click to display or hide the graticule.

Base Map Chooser

Controls the display of the base map.

- Click ▲ to show all available base maps.
- Click a base map to make it the one displayed.
- Click ▼ to show only the current base map.

Concepts

AOI Geometry
A geometry (polygon, line or point) which delimits an **Area of Interest** shape used for querying or editing.

COGO
A way of specifying a geometric shape using a coordinate geometry description. A coordinate geometry description includes a start point, and a list of distances and bearings defining the line segments making up a line or polygon.

Coordinate System
(Also called **Projection**) The spatial reference system in which geometry or feature coordinates are represented. Supported Coordinate Systems include:

- **Geographic** - may be Lat,Lon or Lon,Lat, in either Decimal degrees (DD) or Degrees-Minutes-Seconds (DMS) can be used.
  DD Example: *49.5, -125.4*
  DM Example: *49 30', -125 20'*
  DMS Example: *49 30' 45", -125 20' 30"*

- **BC-Albers** - uses X Y
  Example: *1047118 495805*

- **UTM** - uses X Y and Zone number

Example: *329751 5483095 zone 10*

Data Format

A way to encode spatial data in computer files. Supported data formats are:

- **KML** (*.KML) - Keyhole Markup Language, used in Google Earth
- **GPX** (*.GPX) - GPS Exchange format
- **GeoJSON** (*.JSON) - Geometry expressed in Javascript notation
- **Well-Known Text** (*.WKT) - a simple standard geometry format
- **Simple Text** (*.TXT) - a text listing of the geometry coordinates
- **GeoMark** - the URL or ID of a BC Government GeoMark

  Example: *http://apps.gov.bc.ca/pub/geomark/geomarks/gm-abcdefghijklmnopqrstuvwxyz0000bc*

  Example: *gm-abcdefghijklmnopqrstuvwxyz0000bc*

- **Shapefile** (*.SHP) - the ESRI shapefile format

Layer

A set of features with a common business definition. Features in a layer have attributes with the same set of names, but possibly different values. Layers have an associated style which specifies how features are displayed on the map. Layer display may be scale-dependent, so that they only appear in a certain scale range.

Overlay

A set of layers accessed from a map service. Overlays may be turned on and off, and have their opacity changed.

Style

The set of graphical parameters that control how features on a layer are displayed.