



Introduction to QGIS (interface, main functionalities)

Navigating the Interface:

Desktop

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QGIS interface is divided into 5 main areas:

- 1. Layers List / Browser Panel
- 2. Toolbars
- 3. Map canvas
- 4. Status bar
- 5. Side Toolbar





Manage Layers Toolbars

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- Add Vector Layer
- Add Raster Layer
- Add Delimited Text Layer
- Add SpatiaLite Layer
- Add/Edit Virtual Layer
- Add PostGIS Layers
- Add WMS/WMTS Layer
- Add WCS Layer
- Add WFS Layer
- New Shapefile Layer

Map Navigation Toolbars

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- Pan Map
- Pan Map to Selection
- Zoom In
- Zoom Out
- Zoom to Native Resolution
- Zoom Full
- Zoom to Selection
- Zoom to Layer
- Zoom Last
- Zoom Next
- New Map View
- New Bookmark
- Show Bookmarks
- Refresh





Attributes Toolbar



- Identify Features
- Run Feature Action
- Select Features by area or single click
- Select Features by Value
- Deselect Features from All Layers
- Open Attribute Table
- Open Field Calculator
- Toolbox
- Open statistical summary
- Measure Line
- Show Map Tips
- Text Annotations





Saving Project Files

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			▲ Hide Folders	GIS files (*.qgs)		Jave	Cancer

- QGIS can save user sessions. (A QGIS file is called a project.)
- Project > Save
- Type in a file name and save your project as a QGZ file (.qgz)
 - QGZ file format is a new default format for QGIS. It is a compressed format with the .qgs file (former default format) embedded in it together with its associated sqlite database (.qgd) for auxiliary data.





Browser Tab



Project Properties



Project Properties changes the default project setting for the **CURRENT** QGIS project.





Panels and Toolbars

Panels and Toolbars:

- Turn them on and off by going to View > Panels or Toolbars.
- Panels provide interactive "windows". Examples: Layers,GPS Information, and toolbox
- Toolbars are a grouping of tools
- Panels/Toolbars can also be added/removed by rightclicking on the toolbar area



Vector Layer Properties

Q "Unititled Project - QGIS Project Full View Javes Settings Plugins Vector Raster Database Web Process	Q Layer Properties - COM_Kampong-Cham Irr	iformation
	Read-onlys	ummary of information and metadata on the current layer
Q Q - Q - Q = 0 - 0 = 0	Used to def	ine general settings for the vector layer
Layers ⊠⊠ ≪ (1) ∞ ▼ ξ ₁ + □ 1 (2)	Provides a c	comprehensive tool for rendering and symbolizing vector data
COM Kampong-Cham Com to Laver	Provides the	e capabilities to configure smart labeling on vector layers
D Zoom to Selection	Allows to an	dd a graphic overlay to a vector laver
Show in Overview	Enables 3D	rendering
Copy Layer	SD View Provides in	formation on fields related to the laver
Depricate Layer	Source Fields Helps set u	p the form to display when creating new features
Remove Layer	Allows to jc	in a loaded attribute table to a loaded vector laver
/ Toggle Editing	Joins Allows to s	tore properties for layers that are not editable
Euter Set Layer Scale Visibility	Auxiliary Storage Provides th	e ability to perform an action based on the attributes of a feature
Set CRS >	Helps confi	gure fields to use for feature identification
Styles >	Allows to se	et the scale dependent visibility and simplify geometry
Layers Browser	Lists all the	variables available at the layer's level
Q. Type to locate (Ctrl+K) Read oordinat 103.488,12.069 % cal 1:1549849 *	Provides or	ptions to create and edit a metadata report on a layer
	Allows to de	eclare data dependencies between layers
	Provides ad	lvanced settings for the Layers panel and/or the print layout legend
	Consists of	Description, Attribution, MetadataURL, and LegendUrl sections
	Gives acces	s to options that help to ensure the quality of digitized geometries

The (Vector) Layer Properties window provides information about the vector layer and provides general settings to manage appearance of layer features in the map (symbology, labeling, diagrams) and interaction with the mouse (actions, map tips, form design).





Data Projections



All vector/raster layers have a projection or CRS. The quickest way to check projections is to right click on the layer > Properties > Sources

Raster Layer Properties



The (Raster) Layer Properties window provides information about the layer as well as the ability to set pyramids levels, adjust appearance, and view the histogram.





Layout Manager

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New New from Template	Ctrl+N	
Open Open From Open <u>R</u> ecent	Ctrl+0	🖹 Layout Manager — 🗆 X
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Rave As	Ctrl+Shift+S	
Save To Revert	•	Show Duplicate Renove Rename
<u>P</u> roperties <u>S</u> napping Options Import/Export	Ctrl+Shift+P	New from Template Empty layout Create COUNTRIES V04MI (Map_Template V04M_MOH_Landscape_110520 18.qpt)
Rew Print Layout	Ctrl+P	Open template directory User Default
New Report	al	Create print layout Title
🗟 Layout Manager		Close
Layouts	45 ,	Enter a unique print layout title
Exit QGIS	Ctrl+Q I	(a title will be automatically generated if left empty)
	r	OK Cancel

The Layout Manager allows you to create a new map layout either from an empty layout or a template. It can be accessed from the Project menu (Project > Layout Manager) or in the Print Layout window (Layout > Layout Manager).

Print Layout



Print Layout interface: 1. Menu Bar; 2. Toolbar; 3. Map Layout; 4. Items and Command History; 5. Layout Properties; 6. Item Properties; 7. Guides





Layout Toolbar

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	 Save project 		• Zoo
	 New layout 		• Zoo
	Duplicate layout		• Zoo
	 Layout manager 		• Zoo
	Add items from template		• Ref
	Save as template		
	Add Pages		
	Print Layout		
	 Export as image 		
	• Export as SVG		

- Export as PDF...
- Undo
- Redo

Navigation Toolbar



Print Layout









Once the map has been added, the other map elements can be added. Their properties, as well as the page properties, can be viewed and modified. The Print Layout tracks changes in the Undo History window.

Layout	Item Properties
 Set the grid spacing and snap tolorance 	Set the font
tolerance	Set scale bar properties
 Export settings 	 Set legend properties
Resize layout to content	Set map element properties