

# **Installing QGIS**

This guide has been written for **GIS software version 3.28**, the current 'Long Term Release' at the time of writing, and for the Microsoft Windows operating system.

**Note:** If you intend to use earlier versions of QGIS or indeed a different operating system such as Apple OSX or Linux you can do so but be aware that there will be differences in user interface screenshots, commands or workflows – usually the differences are minor.

The software is freely available from: www.ggis.org/en/site/forusers/download.html

1. Open your internet browser and enter the above web address into the search bar. Your window should look like this below:

3.30.3 3.28.7 LT	R DISCOVER QGIS	FOR USERS	GET INVOLVED	DOCUMENTATION	Search		English
Binary The cu The lor QGIS i	wnload QGIS ackages (installers) are ava rent version is QGIS 3.30.3 g-term repositories currently available on Windows, mad currently in feature freeze p	illable from this pa "s-Hertogenbosch offer QGIS 3.28." COS, Linux, Andro	age. n' and was released 7 'Firenze'. id and iOS.	on 26.05.2023.	g the prereleases. See r	oad map.	
INST	ALLATION DOWNLOADS	ALL RELEAS	ES SOURCES				
	wnload for Windows	ecommended for keep each compo	oking for the most state occupy osci regular users or orgonent up-to-date ind		It allows to have severa to download the whole (		
Do	vnload for macOS						<
Do	vnload for Linux						<

 Press the link indicated above to download the long-term release of QGIS 3.28 for Windows. If using macOS or Linux, click the related drop-down arrow indicated, and download the long-term release for the relevant operating system instead.



2. Once the download has completed (this may take 30 minutes or longer depending on your internet connection), navigate to your downloads folder and locate the downloaded installer:

🔁 QGIS-OSGeo4W-3.28.7-1.msi	12/06/2023 12:15	Package Windows	1200317 Ko

- Double-click the downloaded installer, to bring up the setup window
- 3. Navigate through the Setup window:
  - Click Next > Tick the "I accept the terms in the License Agreement" and click Next >



click Next > click Install

- You will require the administrator's permission to make changes to your PC
- The setup window will begin to install QGIS, wait till the green bar has completed loading. Then click **Finish**.

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		Q
GIS 3.28.7 'Firenzo	e'.	
Back	Next	Cancel
		GIS 3.28.7 'Firenze'.

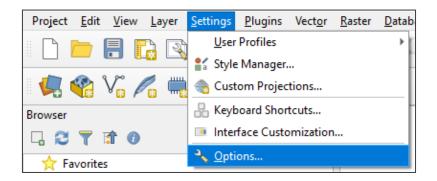


# **QGIS: Recommended User Settings**

This document suggests a user configuration to set up your QGIS application for the purpose of this training course. However, you may find the suggested configurations useful for your ongoing work.

- 2. Start QGIS (the following instructions based on Windows 10 Operating System):
  - In the bottom-left of your screen click your Windows Start button then scroll down to Q
     > QGIS 3.28.. then click QGIS Desktop 3.28..

All configuration options detailed here are accessed from the drop-down menu Settings > Options



Review each of the screenshots and ensure your settings match those highlighted by the red boxes.

### **CRS** Tab

Q Options — CRS				
Q	▼ CRS for Projects			
🔀 General	When a new project is created			
🍓 System	O Use CRS from first layer add	ded		
<ul> <li>CRS and Transforms</li> </ul>	Use a default CRS EPSG:4326 - WGS 84			
CRS				
🍪 Transformations	CRS for Layers			
🔹 🧰 Data Sources	Default CRS for layers EPSG:4326 - WGS 84			
🜏 GDAL	When a new layer is created, or when a layer is loaded that has no CRS			
≼ Rendering	O Leave as an unknown CRS	<ul> <li>Leave as an unknown CRS (take no action)</li> </ul>		
🖾 Canvas & Legend	Prompt for CRS			
🛤 Map Tools	Use project CRS			
🔶 3D	Use default layer CRS			
E Colors				
🔯 Digitizing	Accuracy Warnings			
🖺 Layouts	Only show CRS accuracy warnings for inaccuracies which exceed Always show			
8 Variables	Show CRS accuracy warnings for layers in project legend			
🔒 Authentication				
📲 Network	Planimetric measurements			

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# Transformations Tab

Q Options — Transformations			
٩	Default Datum Transformations		
🔀 General	✓ Ask for datum transformation if several are available		
🍓 System	Enter default datum transformations which will be used in any newly created project		
<ul> <li>CRS and Transforms</li> <li>CRS</li> </ul>			
💮 Transformations	Source CRS Destination CRS Operation w Fallback Transfo		
🔹 🛅 Data Sources			
🚱 GDAL			
🞸 Rendering			
🖾 Canvas & Legend			
🔤 Map Tools			
😚 3D			
📕 Colors			
🔯 Digitizing			
🖺 Layouts			
8 Variables			

## Data sources Tab

Q Options — Data Sources			
Q	▼ Feature Attributes and Table		
🔀 General	✓ Open attribute table as docked window		
🍓 System	Copy features as	Plain Text, WKT Geometry	
<ul> <li>CRS and Transforms</li> <li>CRS</li> </ul>	Attribute table behavior	Show All Features	
Transformations	Default view	Remember Last View	
Data Sources	Attribute table row cache	10000 \$	
🚷 GDAL	Representation for NULL values	NULL	
🞸 Rendering			
🖾 Canvas & Legend	Data Source Handling		
🗱 Map Tools	Scan for valid items in the brows	er dock	
😚 3D	Scan for contents of compressed	d files (.zip) in browser dock	
E Colors	Prompt for sublayers when oper	ing	
🜌 Digitizing	Automatically refresh directories in browser dock when their contents change		
陀 Layouts		and a set of the set o	
${\mathbb S}$ Variables	▼ Localized Data Paths		



### **Rendering Tab**

Q Options — Rendering					
Q	▼ Rendering Behavior				
🔀 General	✓ By default new layers added to the map should be displayed				
🍓 System	✓ Use render caching where possible to speed up redraws				
<ul> <li>CRS and Transforms</li> </ul>	Render layers in parallel using many CPU cores 🛛 🗸 Max cores to use 🛛 8 🛛 😂				
💮 CRS	Map update interval 250 ms				
🌞 Transformations	The second seco				
👘 🛅 Data Sources					
🌏 GDAL	Note: Feature simplification may speed up rendering but can result in rendering inconsistencies				
💰 Rendering	Simplification threshold (higher values result in more simplification)				
🖾 Canvas & Legend	Simplification algorithm Distance 🔻				
🗱 Map Tools	Simplify on provider side if possible				
😚 3D	Maximum scale at which the layer should be simplified (1:1 always simplifies) 1:1				
E Colors					
🔯 Digitizing	g Magnification level 100%				
🖺 Layouts	- Desidering Ourlity				
S Variables	Rendering Quality				
Authentication	Make lines appear less jagged at the expense of some drawing performance				

- Notes:
  - Render layers in parallel using many CPU cores; increase the Max cores to use to the maximum for your machine. (For reference, this setting increases processing power meaning that QGIS becomes noticeably faster at displaying large image files! In the screenshot example the PC had 8 cores, yours may have more or less, we recommend increasing it to the maximum
  - Make lines appear less jagged at the expense of some drawing performance should be un-ticked - this has little effect visually, but can produce a strange appearance when displaying contiguous polygons with a solid fill

#### Canvas & Legend Tab

Q Options — Canvas & Legend		
Q	▼ Default Map Appearance (overridden by project p	properties)
🔀 General	Selection color	
🍓 System		
<ul> <li>CRS and Transforms</li> </ul>	▼ Layer Legend	
🌐 CRS	Double-click action in legend	
Transformations	✓ Display classification attribute in layer titles	
Data Sources GDAL	WMS getLegendGraphic resolution	0 dpi
<ul> <li>GDAL</li> <li>Kendering</li> </ul>	Minimum legend symbol size	0.10 mm
🖾 Canvas & Legend	Maximum legend symbol size	20.00 mm





## **Processing Tab**

Q Options — Processing		X
Q	Setting	Value
🔀 General	👻 🌞 General	
😽 System	🌼 Default output raster layer extension	tif
<ul> <li>CRS and Transforms</li> </ul>	Default output vector layer extension	gpkg
🌐 CRS	🌼 Invalid features filtering	Skip (ignore) features with invalid geometries
🄹 Transformations	🌞 Keep dialog open after running an algorithm	$\checkmark$
Data Sources	🔅 Max Threads	8
GDAL	🍀 Output folder	$\label{eq:c:Users} C:\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
✓ Rendering	🌼 Override temporary output folder path	
Canvas & Legend	🌞 Post-execution script	
Map Tools	🌼 Pre-execution script	
↔ 3D	🌞 Prefer output filename for layer names	
Colors	🌼 Results group name	
Colors	🌞 Show algorithms with known issues	
Digitizing	Show layer CRS definition in selection boxes	<b>v</b>
Layouts	🌞 Show tooltip when there are disabled providers	$\checkmark$
8 Variables	🗱 Style for line layers	
Authentication	Distance of the second	
📲 Network	🗱 Style for polygon layers	
✓ GPS	🗱 Style for raster layers	
🔚 GPSBabel	🌞 Warn before executing if parameter CRS's do not match	✓
Q Locator	Menus	Reset to defaults
Acceleration	🕨 🌞 Models	
V IDE	Providers	
🚍 Code Editor	🕨 🥐 Scripts	
🍦 Python Console		
🌞 Processing		
🔥 Advanced		OK Cancel Help

- Expand the **General** category
- Set Invalid features filtering to Skip (ignore) features with invalid geometries
  - (*Note*: you will need to double-click the text next to **invalid features filtering** to get the options for this setting, as indicated above)
- Tick to enable Prefer output filename for layer names