

QGIS 4.0

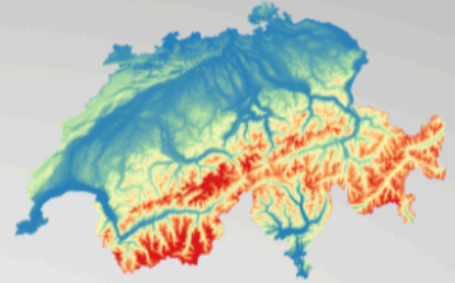
& Cloud Native Data Formats

Part I. Cloud Optimized GeoTIFF (COG)

NEXTGIS



COG
CLOUD OPTIMIZED
GEOTIFF



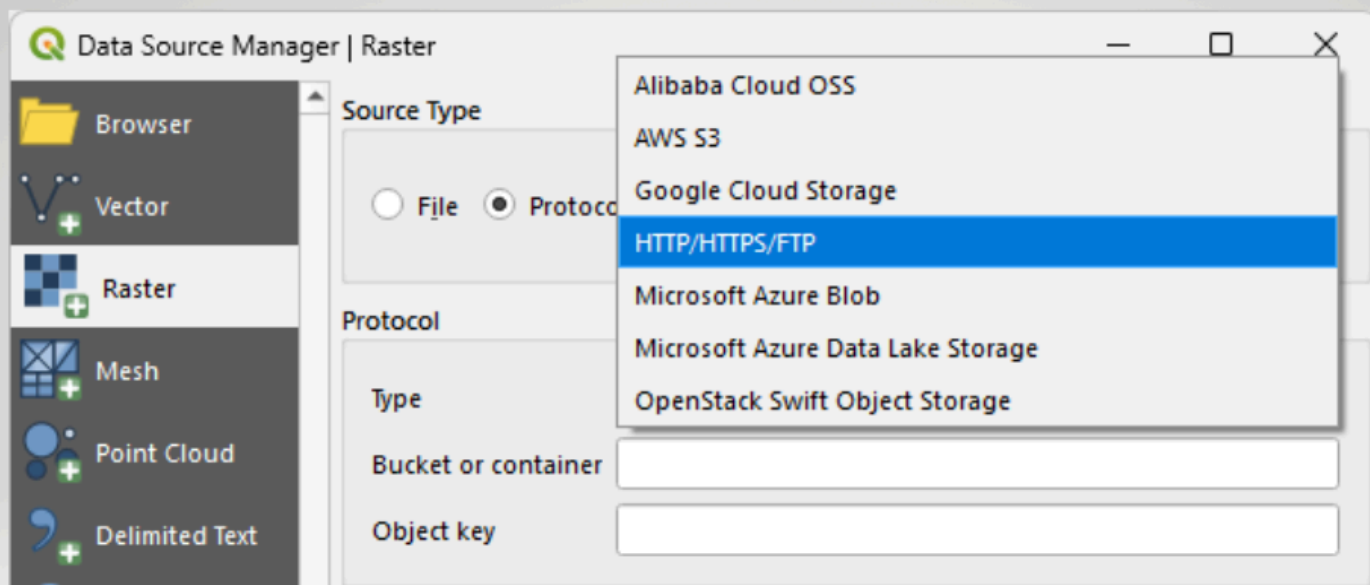
COG is a way to store raster datasets so they can be [efficiently accessed directly from cloud storage](#), allowing clients to read only the needed portions via HTTP range requests [instead of downloading the entire file](#).

All standard GeoTIFF capabilities are preserved:

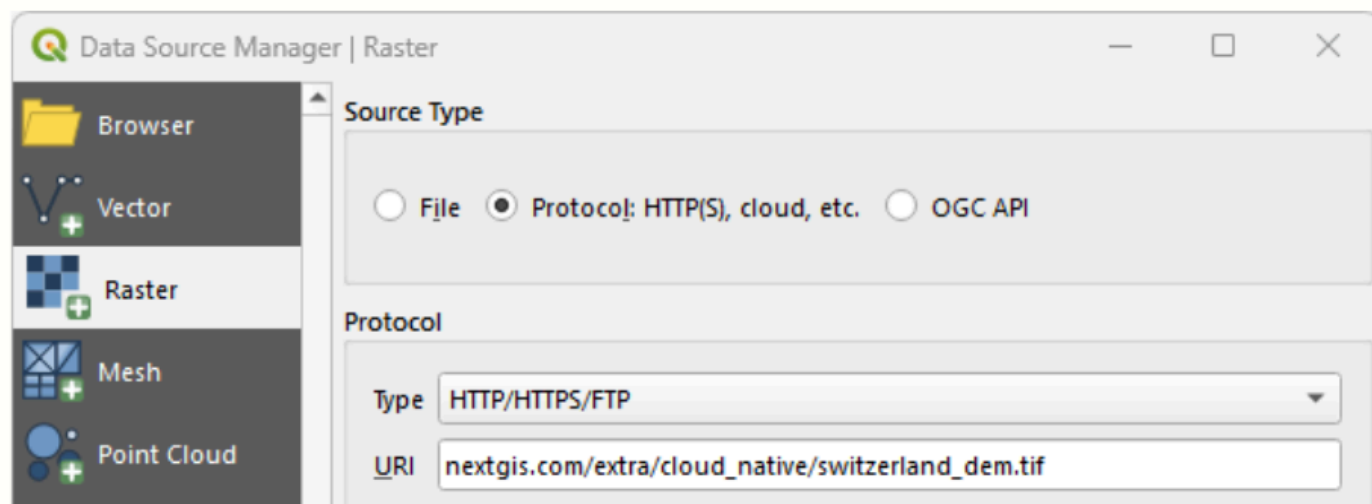
- Multiband rasters
- Support for many data types
- Full CRS and georeferencing metadata
- Compression options
- Internal tiling and overviews

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QGIS 4 supports direct reading of COGs from various cloud storage types:

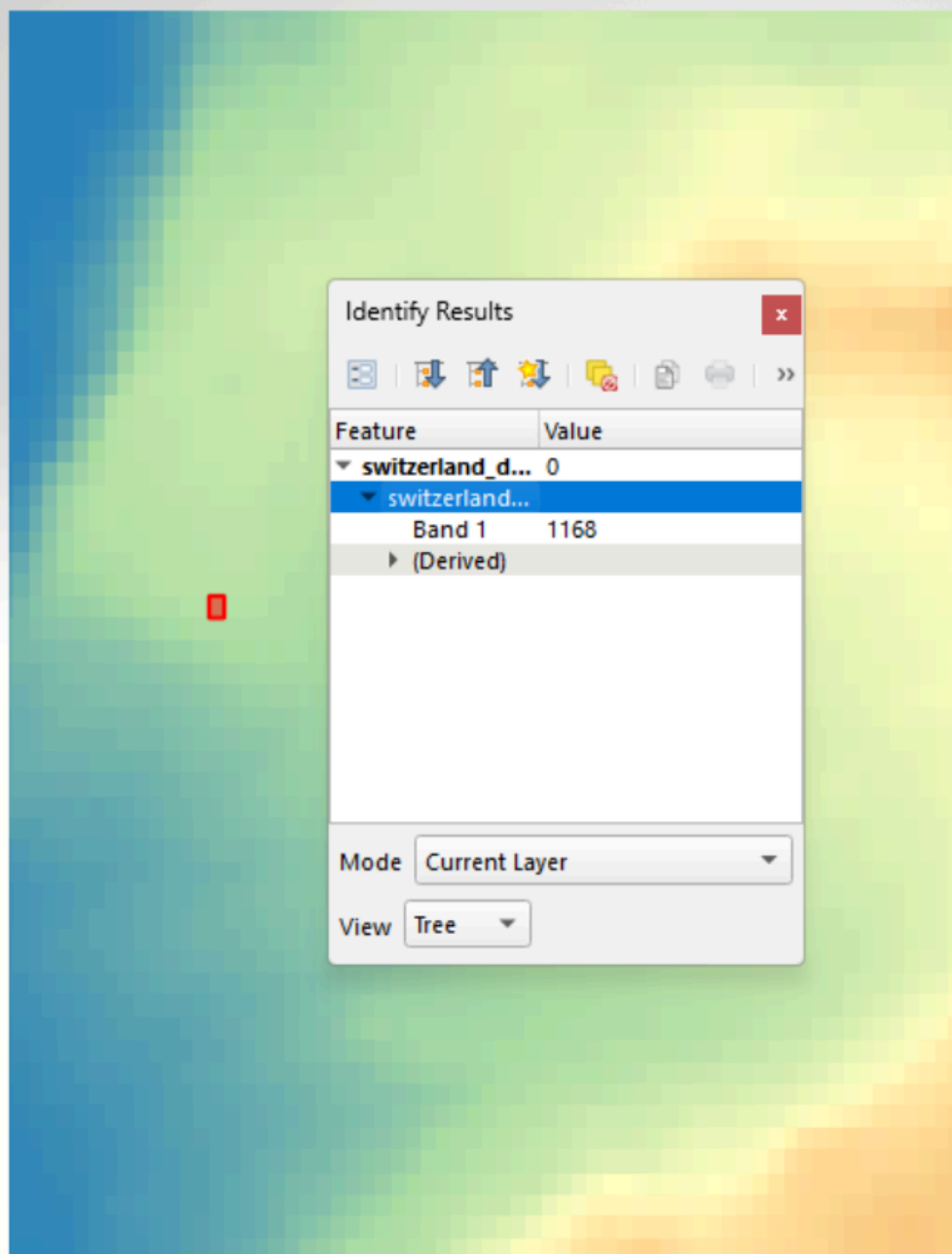


Use [Data Source Manager](#) → [Raster](#) and set [Source type](#) to “[Protocol](#)”



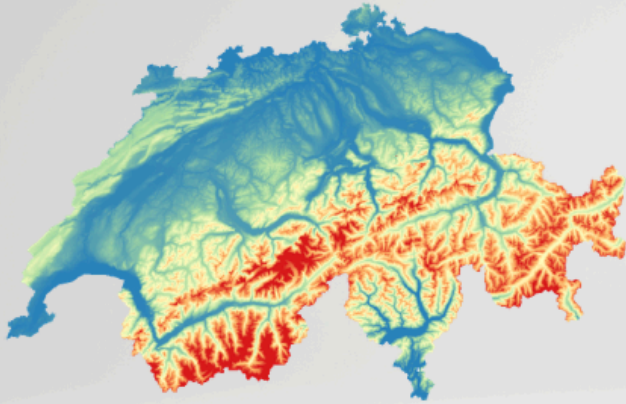
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The connected raster is not an RGB tileset or rendered image, but the **original raster dataset with full data values, identifiable**



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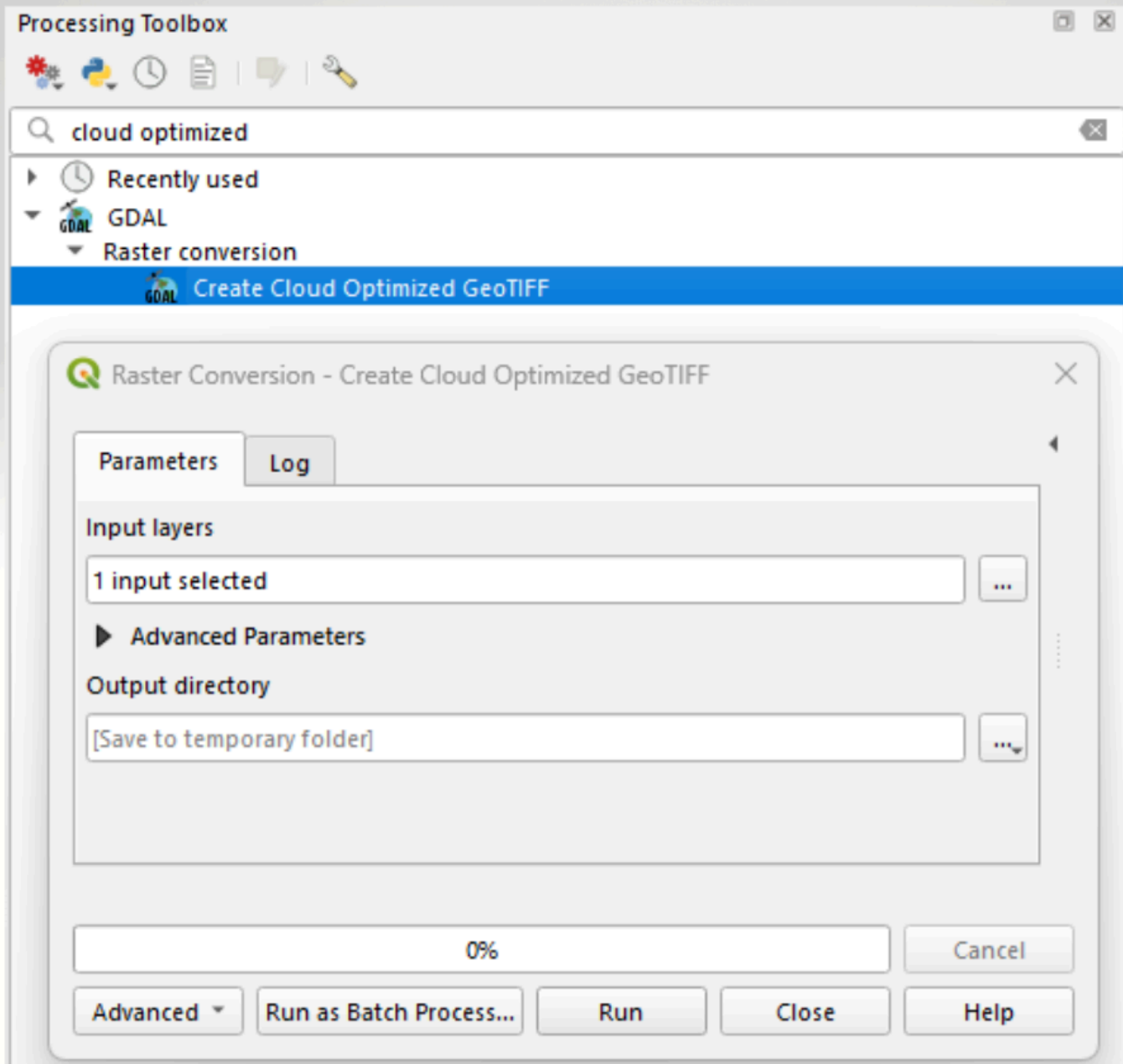
Style it using all QGIS capabilities, just as you would with a local dataset



However, be careful when using it in Raster Calculator or Processing tools. On most cases the raster will be downloaded locally for the operation

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To create a COG from any raster dataset, use the built-in tool:
GDAL → Raster Conversion →
Create Cloud Optimized GeoTIFF



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The logo for QGIS 4.0, featuring the letters 'QGIS' in a bold, green, sans-serif font. The letter 'Q' is stylized with a small orange and green icon resembling a map or a location pin. To the right of 'QGIS' is the version number '4.0' in a white, sans-serif font.

QGIS 4.0

& Cloud Native Data Formats

Happy mapping!

The logo for NEXTGIS, featuring the word 'NEXTGIS' in a bold, blue, sans-serif font. The letters 'N', 'E', 'X', and 'T' are in black, while 'G', 'I', and 'S' are in blue. The logo is positioned in the bottom left corner of the slide.

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