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Comparing ArcGIS Pro and QGIS

Both ArcGIS Pro and QGIS are systems that are used to collect, analyze, and represent geographic and spatial data that can be understood by the user or client. The two softwares offer the same fundamental tools for visually representing spatial analysis, including web mapping services, remote sensing, and 3D modeling (Techjockey, ArcGIS Pro VS QGIS). However, their differences in their costs and the tools that they offer render it up to the GIS analyst to decide which one is best suited for them.

Firstly, unlike ArcGIS Pro, QGIS is a free and open source software. Because of this, you will be able to use QGIS at no cost and collaborate with the entire public QGIS community to resolve any glitches you may run into (QGIS, FAQ). However, with ArcGIS Pro, you will have to pay a yearly fee and contact Esri itself when running into software issues since only Esri has access to the source code (Esri, Report Software Errors).

On the upside, ArcGIS Pro offers more functionalities for each of the geoprocessing tools that QGIS provides such as segmentation and object detection for remote sensing and a better user interface (GIS Geography, 35 Differences Between ArcGIS Pro and QGIS 3). Because of the extended functionalities, even though ArcGIS Pro is able to process MXD files made from

QGIS, QGIS is not able to process APRX files made from ArcGIS Pro (GIS Geography, 35 Differences Between ArcGIS Pro and QGIS 3).

In terms of user interface, ArcGIS Pro's user interface prioritizes neatness since it organizes its tools into spaced-out labeled tabs that only suggests/shows relevant tools when clicked on. However, QGIS's user interface prioritizes compactness since it displays all of its functionalities at once as small unlabeled buttons compacted onto a few narrow rows.

Sources Cited

“Compare Arcgis pro vs QGIS.” *Techjockey*,

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“Report Software Errors.” *Report Software Errors-ArcGIS Pro | Documentation*,

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says:, Judith Kerman, et al. “35 Differences between Arcgis pro and QGIS 3.” *GIS Geography*, 8 June 2022, <https://gisgeography.com/arcgis-pro-vs-qgis-3/>.