

Table of comparison between the three existing plugins

Plugin	GRASS : stream.order	QGIS v2 : strahler	Hy2rores0
Version	GRASS 7	QGIS 2	QGIS 3
Orders calculated	Strahler, Shreve	Strahler	Strahler, Shreve, Horton
Network supported	Binary tree	Binary tree	Binary tree Lonely islands Complex islands Island with several edges incoming Succession of islands Rings
Necessary data to enter (in addition to the network)	Layer with points representing the sinks	Select in the layer an edge with a sink	/
Données en sortie	New layer with the new fields	New field in the input layer	New fields in the input layer
Implementation strategy	Recursive From sinks to sources	Recursive From sinks to sources	Iterative From sources to sinks
Extent of the processed network	Branches flowing into the sinks in the layer containing them	The branch flowing into the selected sink	The whole network
Functionalities	Takes into account the flowing direction Corrects wrong directions		Takes into account the flowing direction Detection of edges with a suspicious direction and interactive correction Detection of the sources and of the sinks Detection of the islands Stroke determination Can take into account the toponyms Can take into account the altitudes
Limits of the implemented functionalities	Defective correction of the edges direction No control on reversed edges	Does not take into account the flow direction Does not take into account the flow direction of the edge selected at the beginning (sink ?)	Automatic solutions may not be optimal in some particular cases