



INTERPOLATION – KRIGING METHOD USING ARCGIS

TEAM SIX

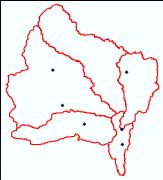



Interpolation – Kriging Method

Create Station Gauges File

- Find the Coordinates of the 6 stations and create a data base on excel.

Station	X	Y
Carros	990026	1877340
Levens	992487	1885350
Roqueste	974732	1885941
Puget	965478	1894518
Théniers	961247	1909251
St Martin	993593	1908785
Vésubie		



Useful data

- The layer with the 5 catchment in Polygon type.
- The file with the 6 station point.
- The file with the precipitation for each station in 1994. In Excel, make a transpose function in order to put this file in the Interpolation processing. One more time, save the file in .dbf4.

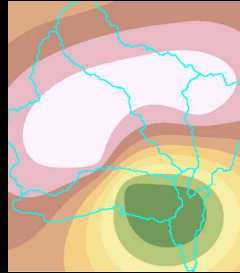
- Save the file in .dbf4 and open in ARC map. After this you can give coordinate (X;Y) at your file. Right clic on the folder, "Display XY Data".

Interpolation – Kriging Method

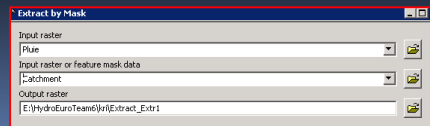
Kriging

- In "Spatial Analysis Tools", in Interpolation, chose the "Kriging" tool.
- Select the data and chose one precipitation. Test the interpolation with the Spherical method.
- In the Environment section , in "Extent": "save as layer Catchment".
- Finally, we can start the interpolation.

- We obtain this kind of map !!!!

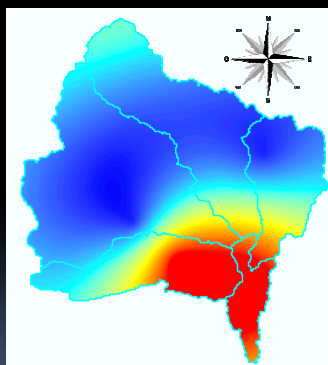


- Extract by mask the good location of each catchment. Using in Spatial Analysis Tool, Extracting, By mask.



Interpolation – Kriging Method

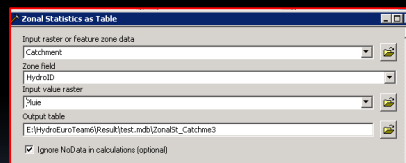
Kriging Map



Rainfall Section 50 ...

Kriging Result

- In order to obtain the table with the result for each subcatchment we need the "Zonal Statistics as table" tool.



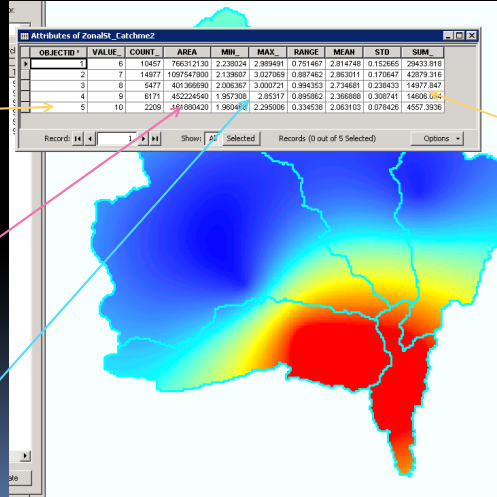
Interpolation - Kriging Method

Result table

Each Sub Catchment:
Tinée, Vésubie, Estéron, Upp Var, Lower Var.

Area in m²

Each Sub Catchment:
Minimum & Maximum rainfall in mm



Each Sub Catchment:
cumulative rainfall