**Catchment analyser exercise**

This exercise introduce the catchment analyser tool to produce a single station or multiple stations metric catchment analysis. This exercise requires the Transport station dataset and the OS meridian line dataset.

**1. Prepare the dataset**

a. clear the canvas

b. drag the tube station shapefile onto the canvas

c. drag the OS meridian shapefile onto the canvas

d. the canvas should show the transport station point layer and the OS meridian line layer

**2. Run the catchment analysis for all and individual origins**

a. the aim of this step is to run the catchment analysis for individual stations and for all stations

b. start the "catchment analyser" tool by clicking on the "catchment analyser" button or go to "SSToolkit" -> "catchment analyser"

c. For the network layer, select the OS meridian line layer

d. leave the custom cost empty

e. For the origin layer, select the transport station point layer

f. leave the custom origin names empty

g. For the cost bands, type the following radii for calculation; 400,800,1200,1600,2000

h. ensure the catchment network is ticked

i. click on the "..." tabs to save the temporary layer as a new shapefile beside the catchment network.

j. ensure the catchment polygon is ticked

k. click on the "..." tabs to save the temporary layer as a new shapefile beside the catchment polygon.

l. the two "..." tabs are used to save the temporary layer as a new shapefile. If you leave blanks no files are created.

m. press run

n. two temporary layers are created that show these catchment bands and polygon bands

**3. Run the catchment analysis for individual lines**

a. the aim of this step is to run the catchment analysis for individual lines rather than for individual stations or for all the stations

b. start the "catchment analyser" tool by clicking on the "catchment analyser" button or go to "SSToolkit" -> "catchment analyser"

c. For the network layer, select the OS meridian line layer

d. leave the custom cost empty

e. For the origin layer, select the transport station point layer

f. click on the custom origin names

g. select "lines" in the custom origin name menu

h. this will do a catchment for individual stations. you can also do this according to different groupings.

g. For the cost bands, type the following radii for calculation; 400,800,1200

h. ensure the catchment network is ticked

i. click on the "..." tabs to save the temporary layer as a new shapefile beside the catchment network.

j. ensure the catchment polygon is ticked

j. click on the "..." tabs to save the temporary layer as a new shapefile beside the catchment polygon.

k. press run

l. two temporary layers are created that show the catchment bands and polygon bands

**4. Visualise catchment analysis**

a. to visualise the catchment analysis for individual stations, double click on the "catchment\_network" in the layers panel

b. go to style

c. under columns, select the "station" you would like to visualise

d. click ok

e. this should now show the catchment analysis for the individual station.

f. if you want to visualise the catchment analysis for all the stations, double click again on the "catchment\_network" under the layers panel

g. go to style

h. under columns, select the "min\_dist"

i. click ok

j. this should now show the catchment analysis for all the stations

k. if you want to visualise the catchment analysis for individual lines, double click again on the "catchment\_network" under the layers panel

l. go to style

m. under columns, select the "line" you want to visualise (ie. northern line).

n. click ok

o. this should now show the catchment analysis for stations for the specific tube lines