

## Statistics via the vector polygons

ICS Telecom has the ability to report coverage statistics based upon a vector polygon area and a clutter file.

To do this you will need to have pre-loaded:

1. Project area
2. Clutter file outlining the area(s) of interest: DPAs, Major cities, roads etc.
3. Network design with the coverage displayed
4. Vector polygon file

In order to create a report:

Load the project, the vector file and the relevant statistically clutter file

Load the network file and display composite coverage

Under 'Options', select 'Report', then 'Vector Polygon analysis'.

The following menu is offered:

The screenshot shows the 'Pattern analysis' dialog box. The 'Clutter selection' section on the left is circled in red, containing a list of clutter codes with 'Urban' selected. The 'Output' section on the right has 'Min <= value <= Max' selected, with 'Min value' set to 34, 'Max value' to 117.00, and 'Step' to 1.00. The 'DEM selection (m)' section at the bottom right has 'min' set to -27 and 'max' set to 2464, both circled in green. 'START' and 'Cancel' buttons are at the bottom right.

The red area is where the user selects the clutter codes for required statistics. In the example above statistical clutter is loaded and those selected relate to clutter code only.

The green area needs the minimum and maximum ground heights available in the modelled area.

The blue area determines the min/max field strength reading you are interested in. Traditionally the upper value is set to 254.

Starting this process enables the tool to assess each vector polygon within the tool and report the coverage statistics for the current settings. ICS Telecom produces an Excel report similar to the one below.

X	Y	Polygon surface km2	Covered surface km2	Percentage covered	Threshold	comment
9.06382	61.40569	52.92	52.52	99.23	34	Area1
11.1831	61.16447	87.28	87.24	99.95	34	Area 2
9.37	60.47562	59.61	59.49	99.81	34	Area 3