






GTB-tools in menu: Image Analysis


Objects: summarize shape and area of image objects

| <p>Accounting: group foreground objects into user-defined size classes</p> <p>Input: Foreground (2b) → output: map/statistics of object size classes</p> |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Parcellation: simple statistics for each input category</p> <p>Input: categorical map → output: summary statistics for each category</p> | <table><tr><th>Class</th><th>Value</th><th>Count</th><th>Area[px]</th><th>APS</th><th>AHAPS</th><th>AHAPS/c</th><th>DIVISION</th><th>PARC[IN]</th></tr><tr><td>1</td><td>1</td><td>45</td><td>2,45E+06</td><td>54420.7</td><td>2.08E+06</td><td>1.27E+06</td><td>0.152039</td><td>1.19374</td></tr><tr><td>2</td><td>164</td><td>957879</td><td>5840.73</td><td>82557.6</td><td>19770</td><td>0.913812</td><td>17.7426</td><td></td></tr><tr><td>3</td><td>212</td><td>593320</td><td>2798.07</td><td>128177</td><td>19008.4</td><td>0.789359</td><td>11.0897</td><td></td></tr></table> | Class | Value | Count | Area[px] | APS | AHAPS | AHAPS/c | DIVISION | PARC[IN] | 1 | 1 | 45 | 2,45E+06 | 54420.7 | 2.08E+06 | 1.27E+06 | 0.152039 | 1.19374 | 2 | 164 | 957879 | 5840.73 | 82557.6 | 19770 | 0.913812 | 17.7426 | | 3 | 212 | 593320 | 2798.07 | 128177 | 19008.4 | 0.789359 | 11.0897 | |
| Class | Value | Count | Area[px] | APS | AHAPS | AHAPS/c | DIVISION | PARC[IN] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 45 | 2,45E+06 | 54420.7 | 2.08E+06 | 1.27E+06 | 0.152039 | 1.19374 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 164 | 957879 | 5840.73 | 82557.6 | 19770 | 0.913812 | 17.7426 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 212 | 593320 | 2798.07 | 128177 | 19008.4 | 0.789359 | 11.0897 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Contortion: complexity of foreground object perimeter</p> <p>Input: Foreground (2b) → output: map of object perimeter complexity</p> |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |




Pattern: object morphology, focal analysis, landscape mosaic

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| <p>Morphological: varying detail of morphological feature classes Input: Foreground (2b) → output: map/statistics of object morphology</p> |  |
| <p>Moving Window: focal class convolution analysis of foreground objects Input: Foreground (2b) → output: map/statistics for spatial convolution</p> |  |
| <p>Landscape Mosaic: focal analysis of landcover heterogeneity Input: tripolar map → output: map/summary of landscape mosaic</p> |  |

GTN(MSPA): Graph Theory Network (GTN) analysis

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| <p>Components; Node/Link Importance; Component Connectors; MSPA</p> <p>ConeforInputs: GTN analysis (Node/Link \leftrightarrow MSPA Core/Bridge)</p> <p>Input: MSPA map \rightarrow output: GTN component map/statistics</p> |  |
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Fragmentation: fragmentation analysis

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| <p>Fixed Observation Scale: fragmentation/connectivity at pixel- or patch level</p> <p><i>Input:</i> Foreground (2b) → <i>output:</i> map/statistics</p> |  |
| <p>Multiple Observation Scale: multiscale fragmentation or Landscape Mosaic</p> |  |
| <p>Legacy: summary index and map analysis with legacy methods</p> <p><i>Input:</i> Foreground (2b) → <i>output:</i> map/statistics</p> |  |

Distance: Euclidean distance analysis

Euclidean Distance, Influence Zones, Proximity: distance analysis within and between foreground objects
Input: Foreground (2b) \rightarrow **output:** map/statistics of distance analysis

Restoration Planner: assess network coherence and simulate restoration scenarios

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| <p>Setup Tools: setup background resistance, insert custom shapes</p> <p>Input: <i>landcover map</i> → output: <i>resistance map with Foreground objects (2b)</i></p> |  |
| <p>Assessment: network status summary, find optimum restoration path, evaluate efficiency of restoration scenario</p> <p>Input: <i>resistance map with Foreground (2b)</i> → output: <i>restoration map/statistics</i></p> |  |