

TNTmips Newsletter — Buffer Zone and Spatial Filter Processes

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In the TNTmips 2015 Development Version the Buffer Zone Generation and image Spatial Filter processes have redesigned user interfaces that make it easier to set up the desired processing parameters. Both processes also boast an array of new features.

Buffer Zone Generation New Features

All process settings are now visible at the same time on a single panel.

An expanded selection of polygon buffer operations includes Expand, Shrink, Outer Ring (Expand - Original), Inner Ring (Original - Shrink), and Border (Outer Ring + Inner Ring).

Set Multiple Equal Distance buffers by specifying start distance, interval (buffer width), and number of buffers.

A Buffer table with buffer distance record(s) is create for both single-distance and multiple-distance results.

Different polygon fill styles are automatically created for each buffer zone distance.

Create buffer zones for vector nodes (in addition to points, lines, and polygons).

Optionally merge buffer zone polygons: all buffer zones or merge by attribute.

Specify different buffer zone distances for elements using distance values in a database field.

An attribute is automatically assigned to indicate if an output polygon is part of a buffer area.

A "Keep saved result" preference setting allows keeping or saving previous results in the View.

New and Updated Technical Guides on Buffer Zone Generation:

[Buffer Zone Generation](#)

[Buffer Zone Distance Options](#)

[Polygon Buffer Zones](#)

Image Spatial Filtering New Features

The Spatial Filter control window has easier-to-use controls and resizable display of filter kernels.

All filters allow variable blending of source and filter result to create output image.

A new family of Gray Level Co-occurrence Matrix filters (Contrast, Dissimilarity, Entropy, and others) has been added for assessing image texture.

A new Gaussian smoothing filter has been added.

Select from predefined filter window sizes or edit the size field to set a custom size.

Optionally apply contrast (auto-contrast or saved table) to grayscale or RGB input before filtering.

Indexed-color images are automatically filtered by color rather than by arbitrary raster value.

Repeat a filter operation automatically a specified number of times.

Import/export a filter kernel from/to a text file.

The Filter View provides a tool set for restricting filtering to a designated image area for output or test.

Define the output or test area by drawing, by selecting a region object, or selecting a binary mask raster object.

New and Updated Technical Guides on Image Spatial Filtering:

[Spatial Filter Process](#)

[Spatial Filter Testing and Masking](#)

[Sharpening Filters](#)

[Smoothing and Noise Removal Filters](#)

[Edge Detection Filters](#)

[Radar Image Filters](#)

[Gray Level Co-occurrence Matrix Filters](#)