

Dissect and dissolve overlaps Ver 0.5

QGIS 3.34 LTR

WARNING

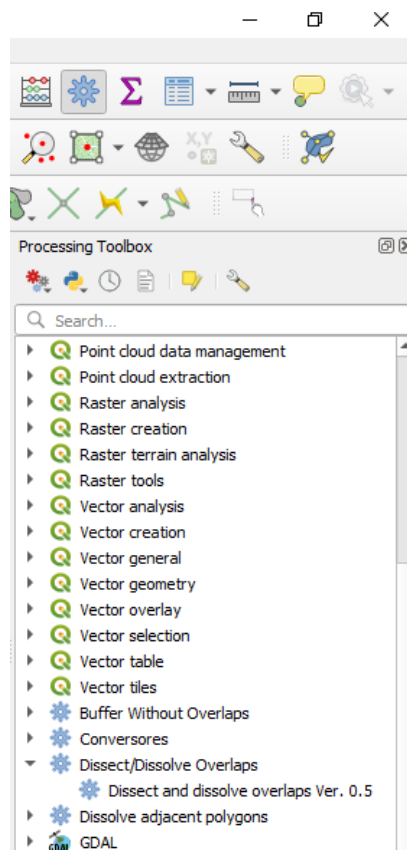
This plugin uses SAGA algorithms. Users must have QGIS 3.34 or newer with SAGA enabled. SAGA 9.1 or newer must be installed in your PC. See page 6 for more information.

1. Introduction

Use this plugin to detect if a polygon layer has two or more features (polygons) overlapping each other. In this case, the plugin can dissect the overlaps into distinct features and dissolve those features into a neighboring feature.

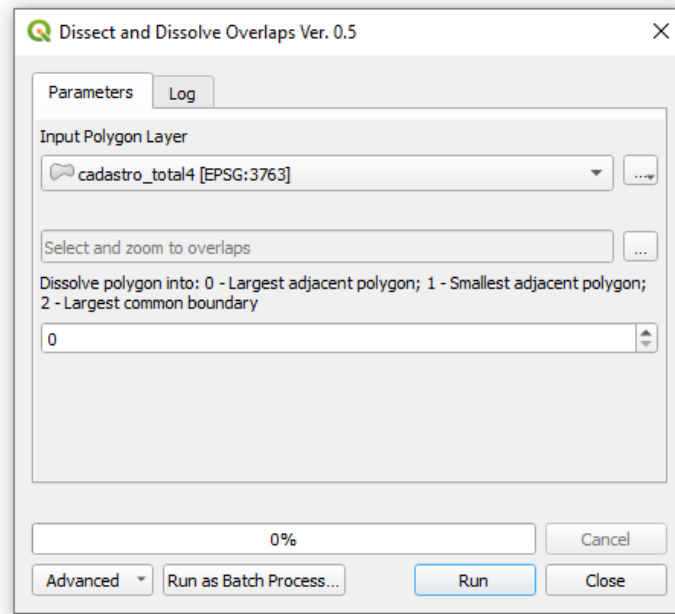
2. Using the plugin

Run the plugin by double clicking *Processing Toolbox* -> *Dissect/Dissolve Overlaps* -> *Dissect and dissolve overlaps Ver. 0.5*, like the following image:



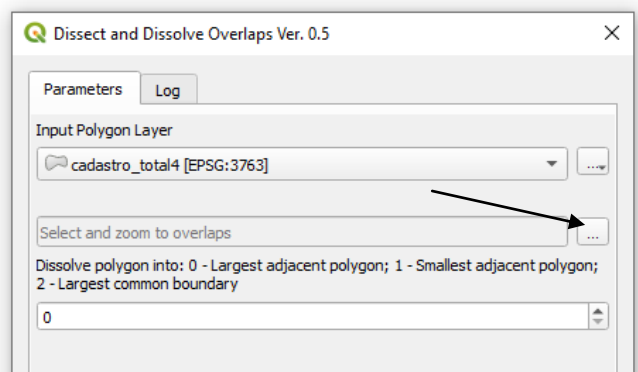
Dissect and dissolve overlaps

This action opens the following plugin parameters window:



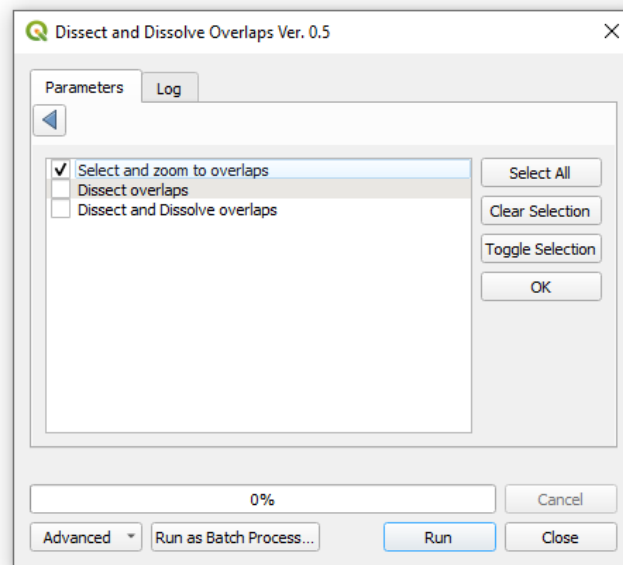
Where:

- *Input Polygon Layer*: user must choose a polygon layer in order to detect if there are overlapping features and, if so, proceed with the following options;
- *Options window*: to open options window, click on the ellipsis sign:
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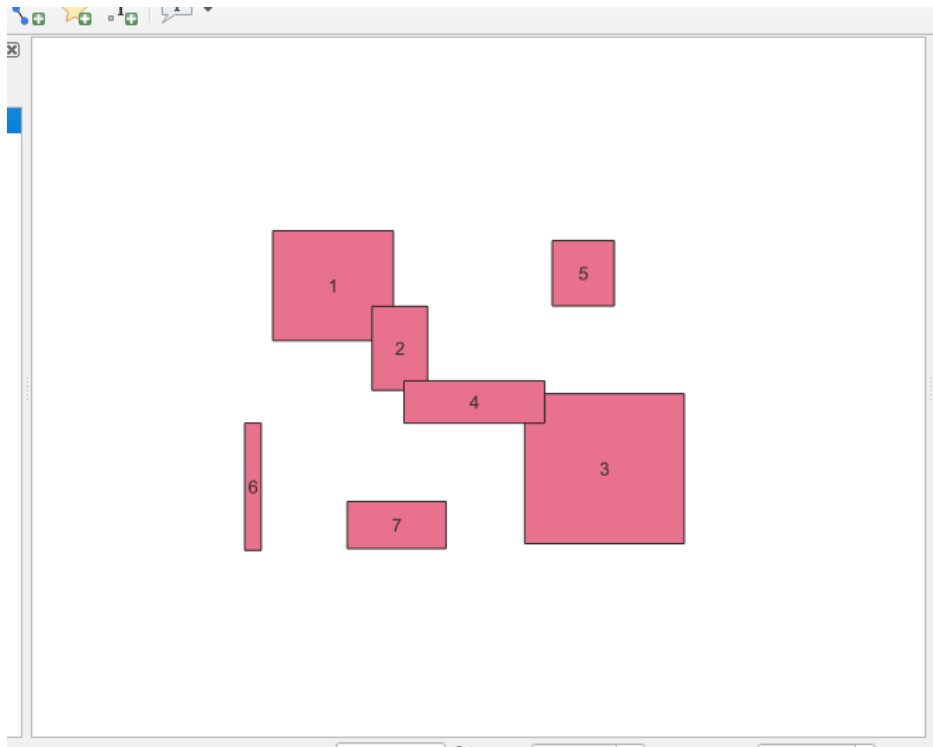


- *Options*: there are 3 options available:
 - o Select and zoom to overlaps (always active);
 - o Dissect overlaps;
 - o Dissect and dissolve overlaps;

Dissect and dissolve overlaps

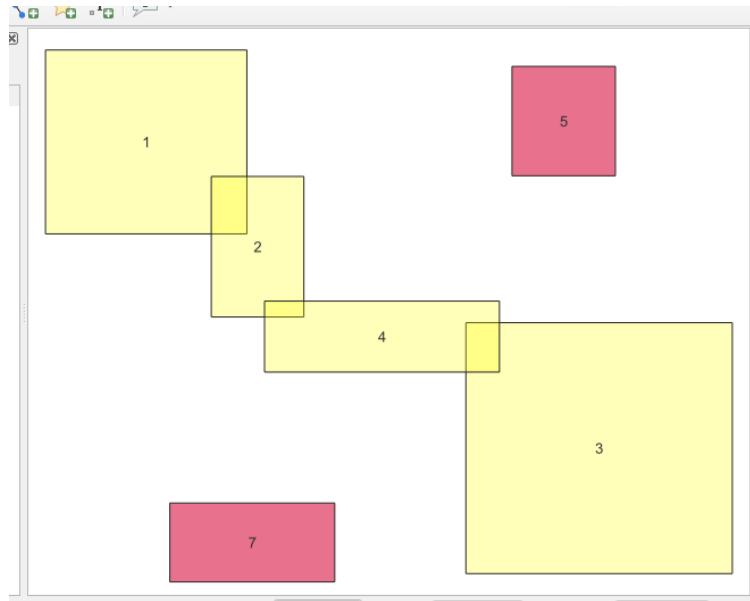


- Select and zoom to overlaps: this option, that is always active, is used to detect if there are overlaps in the input polygon layer; if so, the features that overlap each other are selected, and the canvas zoom to this selection;



In the above image of the canvas, feature 2 intersects parts of features 1 and 4, and features 3 and 4 intersect each other in part.

Dissect and dissolve overlaps



In the above image of the canvas, after running the plugin, the intersections of features 1, 2, 3 and 4 are detected, selected and zoomed to them.

- If input polygon layer has no overlaps: in this case, the plugin will issue a message, which will be visible for a period of ten seconds, closing automatically and ending the plugin execution (users should not try to close this window manually !);
- Dissect overlaps: if the previous option detects overlaps, and user have selected this one, the plugin will perform the dissection of the overlaps into distinct features, and will create a new shapefile layer, named "IntersectedXYZ":

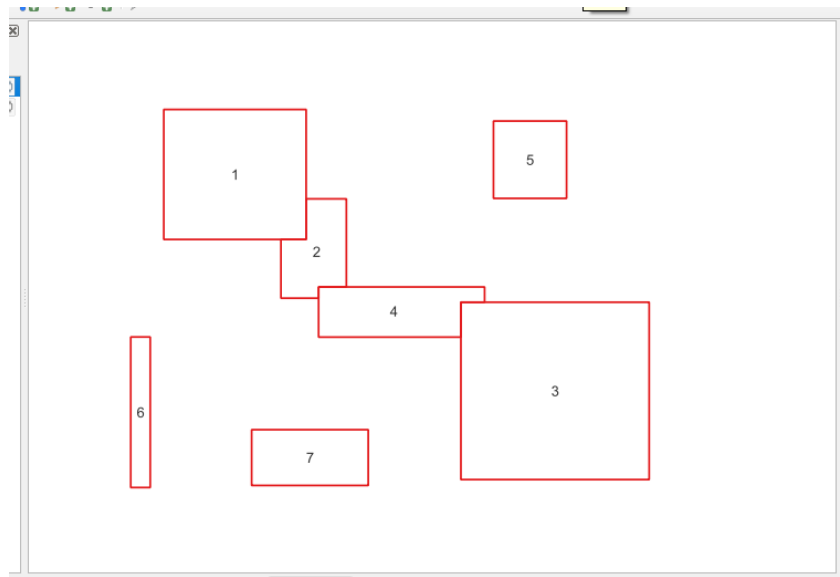


In the above image of the canvas, after running the plugin with the option 2 selected, the intersections of features 1, 2, 3 and 4 are **dissected**, and a new shapefile layer were created with 3 new features, with Id_SI Inte = 2|1, 4|2 and 4|3.

Dissect and dissolve overlaps

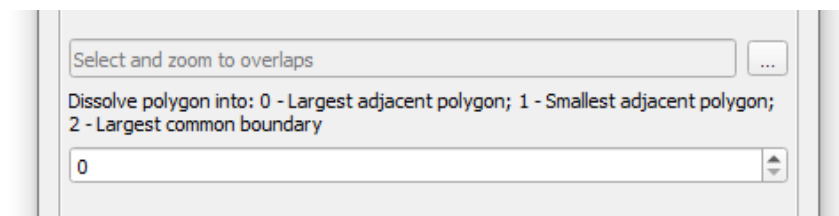
This new shapefile layer will have two new fields, named “Id_SI” and “Id_SI Inte”; the last one will have values like ‘2|1’, for example. This value means that this feature was the overlapping area of features Id_SI=1 and Id_SI=2.

- Dissect and dissolve overlaps: with this third option selected, the plugin will **dissolve** the new features created by the dissection of the overlapping areas, **into the neighboring features**, and a new shapefile layer named “DissolvedXYZ” is created:



In the above image of the canvas, after running the plugin with the option 3 selected, the intersections of features 1, 2, 3 and 4 are **dissolved**, and a new shapefile layer were created.

- ***Dissolve polygons into***: user may choose the way overlaps are dissolved into neighboring features with the following options:
0 – Largest adjacent polygon; 1 – Smallest adjacent polygon;
2 – Largest common boundary.



- ***What do the letters X, Y and Z mean in the shape name***: it is a set of 6 digits, corresponding to the [Hour, Minute, Second] the plugin was started by the user. Example: Dissolved141710 means that the

user start running this plugin at 14 hours, 17 minutes and 10 seconds. This is a convenience for the user to try out several options.

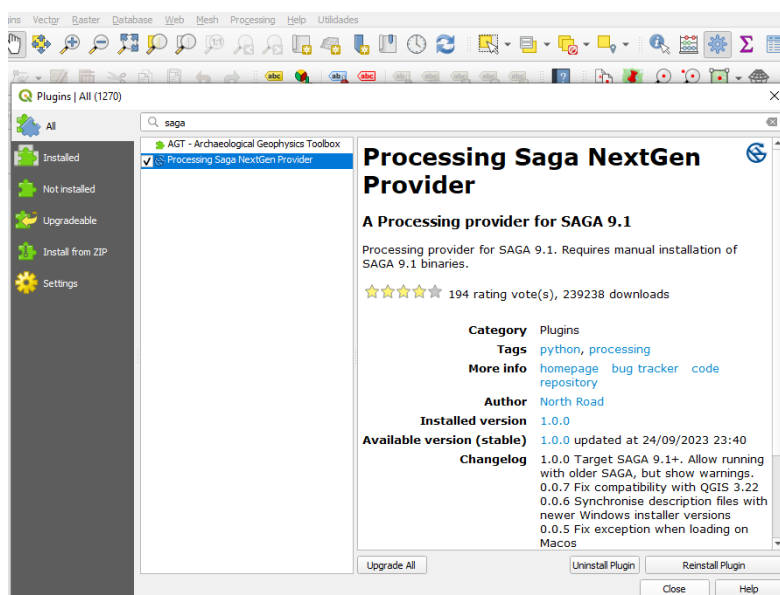
- **Where the new shapes created are stored:** the IntersectedXYZ and DissolvedXYZ shapes are stored in the same folder as the respective QGIS project.

3. Preparing your QGIS 3.34 (or higher) to work with SAGA Next Generation (SAGANG)

To use the "Dissect and dissolve overlaps" plugin, you need to install and enable the "Processing Saga NextGen Provider" plugin, along with the latest SAGA GIS version (9.x):

- 1 download the latest version 9.x of SAGA GIS ¹;
- 2 unzip the file "saga-9.3.2_x64.zip" (or higher) and place the unzipped folder anywhere in your PC;
- 3 in the unzipped folder look for the file "saga4qgis.zip"; unzip this file and follow the instructions contained therein;
- 4 install the "Processing Saga NextGen Provider" plugin by going to menu Plugins->Manage and Install Plugins->All->Processing Saga NextGen Provider;
- 5 activate the "Processing Saga NextGen Provider" plugin by going to Settings->Options->Processing->Providers->SAGANG and enable SAGA, and look for the folder where "saga-9.3.2_x64" was unzipped (this folder must be kept in your PC).

4



¹ Try this link to download SAGA binaries: <https://sourceforge.net/projects/saga-gis/files/>

Dissect and dissolve overlaps

5

