

QGIS Application - Bug report #20415

Clip raster by mask layer

2018-11-08 02:41 PM - Paul Day

Status: Closed	
Priority: Normal	
Assignee:	
Category: GDAL Tools	
Affected QGIS version: 3.4.1	Regression?: No
Operating System:	Easy fix?: No
Pull Request or Patch applied: Yes	Resolution:
Crashes QGIS or corrupts data: No	Copied to github as #: 28235

Description

I generated a 10m raster (32-bit geoTIFF) using 'Rasterize (vector to raster)' [gdal_rasterize] with cells centred at whole 10m grid values - this gives raster extents to the outer edges with grid values ending in 5.

I clipped the raster using 'Clip raster by mask layer' [gdalwarp], but the results were shifted by half a cell (5m). I tried both with and without matching the extent of the clipped raster to the mask layer and got the same result, i.e. the data is offset NW by 5m and extents showing grid values ending in 0.

I have seen the same in v2.18.19 'Raster > Extraction > Clipper...' unless I force the extents using the -te option, which is possible using the Edit button to alter the command string, but this has disappeared from v3.x.

So, two points to note:

- Clipping using gdalwarp (without -te) seems to shift the input data, which is not good
- I see no way to specify output extents when using the tool in v3.x

Test Data files attached and processing results below...

Algorithm 'Rasterize (vector to raster)' starting...

Input parameters: { 'BURN' : 0, 'DATA_TYPE' : 5, 'EXTENT' : '502375, 505905, 106045, 108155', 'FIELD' : 'ogc_fid', 'HEIGHT' : 10, 'INIT' : 0, 'INPUT' : '<filepath>\\Input_Polygon.shp|layername=Input_Polygon', 'INVERT' : False, 'NODATA' : 0, 'OPTIONS' : 'COMPRESS=PACKBITS', 'OUTPUT' : '<filepath>/_B_10m_Raster_Polygon.tif', 'UNITS' : 1, 'WIDTH' : 10 }

GDAL command:

```
gdal_rasterize -I Input_Polygon -a ogc_fid -tr 10.0 10.0 -a_nodata 0.0 -te 502375.0 106045.0 505905.0 108155.0 -ot Float32 -of GTiff -co COMPRESS=PACKBITS <filepath>\\Input_Polygon.shp <filepath>/_B_10m_Raster_Polygon.tif
```

GDAL command output:

0...10...20...30...40...50...60...70...80...90...100 - done.

Execution completed in 0.85 seconds

Results: { 'OUTPUT': <QgsProcessingOutputLayerDefinition { 'sink': <filepath>/_B_10m_Raster_Polygon.tif, 'createOptions': { 'fileEncoding': 'System' } } } }

Loading resulting layers

Algorithm 'Rasterize (vector to raster)' finished

Algorithm 'Clip raster by mask layer' starting...

Input parameters: { 'ALPHA_BAND' : False, 'CROP_TO_OUTLINE' : False, 'DATA_TYPE' : 0, 'INPUT' :

'S:/GIS_Expert_Services_PostAward/GIS/WorkingGIS/20180411_HabConn/99_GDAL_ClipTests/_B_10m_Raster_Polygon.tif',

```
'KEEP_RESOLUTION': True, 'MASK': '_<filepath>\\C_Clip_Polygon.shp', 'NODATA': None, 'OPTIONS': 'COMPRESS=PACKBITS', 'OUTPUT': '_<filepath>/_D_10m_Raster_Clip.tif' }
```

GDAL command:

```
gdalwarp -of GTiff -tr 10.0 -10.0 -tap -cutline <filepath>\C_Clip_Polygon.shp -co COMPRESS=PACKBITS <filepath>/B_10m_Raster_Polygon.tif <filepath>/D_10m_Raster_Clip.tif
```

GDAL command output:

Creating output file that is 354P x 212L.

```
Processing <filepath>/B_10m_Raster_Polygon.tif [1/1] : 0Using internal nodata values (e.g. 0) for image <filepath>/B_10m_Raster_Polygon.tif.
```

```
Copying nodata values from source <filepath>/B_10m_Raster_Polygon.tif to destination <filepath>/D_10m_Raster_Clip.tif.
```

```
...10...20...30...40...50...60...70...80...90...100 - done.
```

Execution completed in 0.51 seconds

```
Results: {'OUTPUT': <QgsProcessingOutputLayerDefinition {'sink': '<filepath>/_D_10m_Raster_Clip.tif', 'createOptions': {'fileEncoding': 'System'}}>}
```

Loading resulting layers

Algorithm 'Clip raster by mask layer' finished

History

#1 - 2018-11-08 07:55 PM - Giovanni Manghi

- Pull Request or Patch supplied changed from No to Yes

- Operating System deleted (Windows 7)

<https://github.com/qgis/QGIS/pull/8445>

#2 - 2018-12-04 11:33 AM - Luigi Pirelli

- Status changed from Open to Closed

merged, btw would need to add unit test to the process, and would be backported

Files

GDAL_ClipTest_DataFiles.zip	17.2 KB	2018-11-08	Paul Day
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