Subject: Re: checking for connectedness of a given set of pixels
Posted by guillermo.castilla.ca on Mon, 03 Jan 2011 21:50:10 GMT
View Forum Message <> Reply to Message

On Nov 14 2010, 5:56 pm, Guillermo
<guillermo.castilla.castell...@gmail.com> wrote:

> ...REGI0N_GROW that may be faster than
> LABEL_REGION for this purpose when the minimum bounding box for the
> input set of pixels is large. I have modified your function to include
> the former as an alternative method (below). I'll do some tests and
> report back (hopefully within this year :).

Just for the record, today I made a test with a 50 megapixel labeled image derived from the rasterization of a polygon vector layer containing 185 elongated features (rivers), of which 65 ended up consisting of disconnected groups of pixels. Checking for connectedness of the pixels within each feature took almost 3 times more using the REGI0N_GROW method than using LABEL_REGION (the latter taking in average 30 millisecs per feature). I quickly looked into the REGI0N_GROW code and noticed that it is based on LABEL_REGION itself, so no wonder. Repeated the test with SEARCH2D instead of REGI0N_GROW and although it was two times faster than the latter, it was still slower than LABEL_REGION. So it looks like LABEL_REGION, even if it does a lot of unnecessary extra work for this task, is the method of choice for checking for connectedness of a set of pixels.

Happy new year!

Guillermo