
Subject: Re: x-y offsets

Posted by [Gray](#) on Wed, 19 May 2010 19:45:13 GMT

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On May 19, 2:50 am, Jeremy Bailin <astroco...@gmail.com> wrote:

> On May 18, 8:29 pm, Gray <grayliketheco...@gmail.com> wrote:

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>> Hi all,

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>> This is a variation on the 2D matching problem that I'm having trouble

>> algorithm-ing (to coin an incredibly awkward word).

>

>> I have two sets of XY coordinates of unequal length (i.e., $x_1/y_1/n_1$,

>> $x_2/y_2/n_2$, $n_1 \neq n_2$). I want to find offsets in both X and Y that

>> match the two sets as closely as possible (there will obviously be

>> some unmatched coordinates in the larger set). I'm just looking for

>> constant offsets, so basically (for $n_1 < n_2$) $x_1 + C_x \rightarrow x_2$, $y_1 + C_y \rightarrow$

>> y_2 , with some elements of x_2 and y_2 being unmatched. How do I go

>> about doing this? I don't think I can use JD's MATCH_2D because I

>> don't know a priori what my matching radius is.

>

>> Any suggestions? Thanks, as always!

>

>> --Gray

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> I would be tempted to create a 2D histogram based on each set and then

> cross-correlate them.

>

> -Jeremy.

How do you turn the cross-correlation into offsets? And, how do you intelligently choose a binsize for the histogram?
