Subject: Re: Avoiding a for cicle
Posted by Benno Puetz on Tue, 11 Apr 2000 07:00:00 GMT
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<!doctype html public "-//w3c//dtd html 4.0 transitional//en">
<html>
"J.D. Smith" wrote:
<blockquote TYPE=CITE>Ricardo Fonseca wrote:

>

> Hi

>

> I'm looking for a more efficient way of implementing the following
(i.e.

> avoiding the for cycle) which is a routine for finding local maximuns

>

> ; Data is a 1D Array

>

> s = Size(Data)

>

> nx = s[1]

>

> max_pos = [-1]

>

> for i = 1, nx-1 do $

>   if ((Data[i] gt Data[i-1]) and (Data[i] gt Data[i+1]))
then $

>   max_pos = [[max_pos],i]

>

> ; and then throw away the first element...
<p>max_pos = where(data gt median(data,3))

 </blockquote>
While this is rather efficient concerning code length,

<pre> maxpos = WHERE(TEMPORARY(data[0:nx-3]) LT TEMPORARY(data[1:nx-2])
AND $</pre>

<pre>
    TEMPORARY(data[1:nx-2]) GT TEMPORARY(data[2:nx-1])) + 1</pre>

<pre></pre>
should execute faster, especially for longer arrays

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