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Subject: Re: derivative function in IDL similar as DIFF in matlab

Posted by [Matthew Argall](#) on Tue, 12 Nov 2013 12:08:10 GMT

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On Tuesday, November 12, 2013 7:01:15 AM UTC-5, Matthew Argall wrote:

> On Tuesday, November 12, 2013 5:08:11 AM UTC-5, Jie Zhou wrote:

>

>> Is there a derivative function in IDL similar as DIFF in matlab? I think the DERIV is different from DIFF.

>

>

>

> TS\_DIFF(data, 1) would be equivalent.

Actually, maybe not. TS\_DIFF calculates the forward difference. I think you are looking for the backward difference.

In that case, I tend to use

```
result = data[1:*] - data[0:n_elements(data)-1]
```

or

```
result = shift(data, 1) - data
```

```
result = result[0:n_elements(result)-1]
```

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