
Subject: Re: IDL mathematics

Posted by [paul](#) on Wed, 31 Aug 1994 20:20:14 GMT

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In article <342fs2\$8sg@yuma.ACNS.ColoState.EDU>, Kelly Dean writes:

>

> How come the following expression gives the wrong answer.

>

> $J = 201 + ((1461 * (1994 + 4799)) / 4) - (3 * ((1994 + 4899) / 100) / 4) - 2465022$

>

> $J = -2457713$

>

The problem is with the large vlaue of $1461 * (1994 + 4799)$, which overflows
one could do

```
IDL> print, 201+((LONG(1461)*(1994+4799))/4-3*((1994+4899)/100)/4)-24650 22
```

```
IDL> 16271
```

note that

```
IDL> print, 1461.*(1994+4799)
```

```
9.92457e+06
```

is like

```
IDL> print, fix( 9.92457E06)
```

```
28634
```

and not like

```
IDL> print, long( 9.92457E06)
```

```
9924570
```

Using LONG rather than converting to floating point preserves any integer
truncation properties that may (or may not) be desired.

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