

---

Subject: ATAN function with two ARGS

Posted by [Ben Tupper](#) on Mon, 05 Jun 2000 07:00:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Hello,

I have bumped into a conflict between the IDL documentation and IDL output.

From the IDL (5.2) docs, the optional argument Y is described as follows:

-----START

Y

An optional argument.

If this argument is supplied, ATAN returns the angle whose tangent is equal to Y/X. If both arguments are zero, the result is undefined.

-----END

So I tried the following...

IDL> help, ATAN(0.0,0.0)

<Expression> FLOAT = 0.00000

Uhoh! Is it me, or is it Monday morning syndrome?

Ben

--

Ben Tupper

Bigelow Laboratory for Ocean Science

[tupper@seadas.bigelow.org](mailto:tupper@seadas.bigelow.org)

[pemaquidriver@tidewater.net](mailto:pemaquidriver@tidewater.net)

---

---

Subject: Re: ATAN function with two ARGS

Posted by [davidf](#) on Tue, 06 Jun 2000 07:00:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Paul Hick ([pphick@ucsd.edu](mailto:pphick@ucsd.edu)) writes:

> I presume that IDL is compiled with whatever math libraries are  
> available on any particular operating system, so it will inherit  
> whatever peculiarities (not necessarily the same on every OS) are in  
> there.

Shoot. I liked my "technical writer's trick" theory better.  
More malevolent. :-)

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting  
Phone: 970-221-0438 E-Mail: [davidf@dfanning.com](mailto:davidf@dfanning.com)  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

---

Subject: Re: ATAN function with two ARGS  
Posted by [Paul Hick](#) on Tue, 06 Jun 2000 07:00:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

I presume that IDL is compiled with whatever math libraries are available on any particular operating system, so it will inherit whatever peculiarities (not necessarily the same on every OS) are in there. Another example: raise NaN to a floating point power on a Windows machine:

```
IDL> print, !values.f_nan^2.0
0.000000
% Program caused arithmetic error: Floating illegal operand
IDL> print, !version
{ x86 Win32 Windows 5.3.1 Feb 23 2000}
```

IDL on Linux, for instance, gives the proper response:

```
IDL> print, !values.f_nan^2.0
NaN
IDL> print, !version
{ x86 linux unix 5.3 Nov 11 1999}
```

Paul

--

---

|  |                                                                                                         |  |
|--|---------------------------------------------------------------------------------------------------------|--|
|  | Paul Hick ( <a href="mailto:pphick@ucsd.edu">pphick@ucsd.edu</a> )                                      |  |
|  | Office : SERF Rm. 302      Smail : UCSD/CASS/0424                                                       |  |
|  | Phone : (858) 534-8965      9500 Gilman Drive                                                           |  |
|  | Fax : (858) 534-0177      La Jolla CA 92093-0424                                                        |  |
|  | WWW : <a href="http://casswww.ucsd.edu/personal/Plh.html">http://casswww.ucsd.edu/personal/Plh.html</a> |  |

---