
Subject: Re: atan in IDL 5.5

Posted by [Craig Markwardt](#) on Tue, 04 Jun 2002 16:13:43 GMT

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Zoe Dent <zoe@aurora.york.ac.uk> writes:

```
> -----1F130981AB8092C521F2309C
> Content-Type: text/plain; charset=us-ascii
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>
> I'm having problems with the 'atan' function in IDL 5.5. I have a
> program which reads in an array of complex numbers, so an array of
> single numbers should be produced, but in fact another complex array os
> produced. At the command-line the atan of a set of complex numbers
> produces a single number. I have disabled the multi-threading option
> with no effect. I'd appreciate any advice on this matter.
```

Right, I used to rely on this too, but RSI made this change pretty obvious in their release notes, as the others have pointed out. It's a pity since the original ATAN behavior will be faster than the new way to do it. That's why I use the following utility function, ZCOMPARG. I set it and forget it.

Craig

```
function zcomparg, z
```

```
  forward_function atan, real_part, imaginary
  common zcomparg_common, atanver
  if n_elements(atanver) EQ 0 then begin
    if !version.release LT '5.5' then atanver = 1 $
    else                               atanver = 2
  endif

  if atanver EQ 1 then return, atan(z) $
  else               return, atan(imaginary(z), real_part(z))

end
```

```
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```

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Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
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