Subject: SUMMARY: formatted printing of structures
Posted by knight on Tue, 28 Jul 1992 20:33:52 GMT
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In an earlier posting (~10 Jul) I considered the inconsistent results of printing elements of a structure. This posting summarizes the results, including a reply from RSI.

The problem is exemplified by the following:

```
IDL> t={a:0,b:1,c:2}
IDL> print,format='(3f10.2)',t          ; BAD---NOT ON ONE LINE
     0.00
     1.00
     2.00
IDL> print,string(format='(3f10.2)',t)   ; BAD---f11.2 FOR 2ND AND 3RD TAGS
     0.00       1.00       2.00
IDL> print,format='(3f10.2,$)',t & print ; OK---WHAT I WANTED
     0.00      1.00      2.00
```

In brief, this behavior will be corrected in the next version (> 2.3.2) so that all three statements produce the same results. The explanation from RSI is the following.

> When printing a variables, IDL decomposes each structure into its
> non-structure components, and then prints all of the components
> according to the format statement or the default formatting.

> There was a problem with the way IDL decomposed the structure into
> its components. Instead of treating all the components as part
> of the same variable, it treated them as separate variables. This
> caused the first example shown above to produce three separate lines
> rather than a single line.

> The IDL routine STRING also uses the same method to deal with variables,
> so the same problem caused STRING to create a string array of three
> elements rather than one string. When the elements of the string array
> are printed they are padded with a single space which explains the output
> from the second example above. This can be seen clearly by using the
> following IDL statement:
> help, string(format='(3f10.2)',t)

> The problem with the decomposition of structure variables has been fixed,
> and will be available in the next version of IDL after IDL V 2.3.2.

Thanks to the people who contributed the solution of using the $ format.

Fred

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