Subject: PLOT keywords vs System Variables
Posted by hadfield_m on Fri, 16 Apr 1993 13:41:05 GMT
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Consider the following

```
  plot,indgen(10)
```

As you'd expect, a graph of a straight line appears on the graphics output device. But this:

```
  plot,indgen(10),position=!P.position
```

gives a blank screen and the message:

```
% PLOT: Data coordinate system not established.
% Execution halted at $MAIN$   (PLOT).
```

Just to make sure there's nothing strange about the setting of !P.position system variable we type:

```
  help,!P.position & print,!P.position
```

and get:

```
<Expression>    FLOAT     = Array(4)
     0.000000     0.000000     0.000000     0.000000
```

Now, as I understand it, the !P, !X and !Y system variables provide defaults which can be overridden in a call to a graphics routine by a keyword. If aaaa is a valid keyword for PLOT, and if there is a corresponding field !P.aaaa, then

```
  plot ,X , Y, aaaa=!P.aaaa
```

should give the same result as calling plot without the keyword. Similarly

```
  plot ,X ,Y ,Xbbbb=!X.bbbb ,Ycccc=!Y.cccc
```

But it doesn't work that way for position.

Can anyone with a deeper understanding than mine of the IDL language explain why?

PS: If anyone really wants to know WHY I am trying to call PLOT with keywords that don't alter its default behaviour I'll explain.

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