
Subject: Re: Troubleshooting - Error Messages.
Posted by [J.D. Smith](#) on Wed, 08 Dec 1999 08:00:00 GMT
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"David L. Keller" wrote:

>
> Vicky A wrote:
>
>> Hello,
>>
>> I'm hoping to benefit from the experience of all you wise people out
>> there...
>>
>> I often find that I make small mistakes when typing in code to IDL
>> eg: I forget to put a comma after 'print',
>> I forget that if I have two 'for' statements I need TWO 'endfor'
>> statements,
>> I forget to put continuation and concatenation symbols in batch files.
>>
>> These are pretty serious errors in that IDL has no idea what I mean,
>> but pretty simple errors in that I only need to add another comma (or
>> whatever) for everything to run like a dream (in theory...!)
>>
>> I find the Error Messages provided by IDL unhelpful
>> ('% Syntax Error.' tells me very little about what's up).
>>
>> Is there some standard procedure for dealing with compilation errors?
>> (I mean errors that prevent a file compiling)
>>
>> I know an experienced user can just look at
>> print n
>> and say/think 'There should be a comma there.'
>>
>> Is that what it boils down to, IDL tells you Where the error is, and
>> you work out What the error is, by recognition or something?
>>
>> I find it really frustrating that I have to keep going back to the
>> book/webpages for every little typing mistake....
>>
>> Oh, and I'm using the Student Vresion if that changes anything.
>>
>> Thank you very much,
>>
>> Vicky A.
>>
>> Sent via Deja.com <http://www.deja.com/>
>> Before you buy.
>

> I will volunteer to be a 'wise person'...
>
> There ARE a few languages that immediately tell you where
> and what the syntax error is. Some BASICs do this. Some
> FORTRANs are better than others in this regard.
>
> IDL: The on-line help is In My Opinion the best way (so far)
> to look up syntax. It is quick and only a few button-clicks
> away (at least on my Linux box). To keep it available, I
> start another IDL session in another 'screen', and open up
> the IDL hypertext help. I keep the session and the help
> window open all day. I don't have to wait for the help
> window to be created, nor the help file contents to be read
> and formatted every time I have a simple syntax question.
>

You should look into the new idlwave emacs mode, if emacs is your thing. It really changes the way I program IDL. It has built-in abbreviations for common structures like IF blocks, PRO, FUNCTION, CASE, WHILE etc. blocks, among many other useful ones. It notices if you use the wrong type of END (ENDIF in a FOR loop, for example). And, thanks to Carsten Dominik, now allows you to do completion and syntax queries on the function or procedure... you can even compile your own routines into a library for searching.

An example with, e.g. [M-Tab], representing where I hit meta-tab or other key combo, and another buffer represented by *'s:

```
a=cu[M-Tab]
```

*Click mouse-2 on a completion to select it.

*In this buffer, type RET to select the completion near point.

*

*Possible completions are:

*cumulate curvefit

or if I have given it more:

```
a=cur[M-Tab]
```

becomes

```
a=curvefit([M-Tab]
```

which gives me

*Click mouse-2 on a completion to select it.

*In this buffer, type RET to select the completion near point.

*

*Possible completions are:
*CHISQ FUNCTION_NAME
*ITER ITMAX
*NODERIVATIVE TOL

to see which keywords I can use. Clicking on one inserts it... e.g. clicking NODERIVATIVE yields.

a=curvefit(NODERIVATIVE=[C-c-?]

(that's a Control-c-?) gives me the routine info:

*Usage: Result = CURVEFIT(X, Y, Weights, A [, Sigma])
*Keywords: CHISQ FUNCTION_NAME ITER ITMAX NODERIVATIVE TOL
*Origin: system routine

Origin could be a library file (compiled from all your favorite routines), scanned buffers which are open in Emacs, or routines compiled into the IDLWAVE Shell (idl running as a subprocess to Emacs). Definitely faster than the online help when you know a routine but have just forgotten whether a keyword is like "NOZERO" or "NO_COPY" (my favorite dichotomy), or which argument goes first.

Mixed case or forced case completion (including object method completion) is available, and the whole thing is very configureable. Take a look at <http://www.strw.leidenuniv.nl/~dominik/Tools/idlwave/> to find out more. Oh and did I mention it indents, highlights, colors, and otherwise arranges your code according to your chosen preferences? Another one of my favorites... with cursor on or in a routine (procedure or function), you hit C-c-v to pull up the source code to that routine! Debugging support is also built-in with the Shell, and it automatically pulls up files

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