Subject: Converting to [] array subscripts
Posted by Wayne Landsman on Sun, 08 Jun 1997 07:00:00 GMT

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I like the use of square brackets for array subscripts in IDL V5.0 -- it forever banishes the variable/function ambiguity, and makes the code read better.   To quickly convert old code to use square bracket subscripts, I've written a procedure IDLV4_TO_V5 available with supporting procedures in ftp://idlastro.gsfc.nasa.gov/landsman/v5/ which will change all the subscripted parentheses in a procedure to square brackets (and leave everything else unchanged.)   The intrinsic ROUTINE_INFO() function is used to determine the names of valid variables, and thus determine which parenthesis should be altered.

IDLV4_TO_V5 has the following limitations (plus I am sure others which I don't yet know about):
    1. It doesn't work on main programs (i.e. without a 'pro' or 'function' definition)
    2. It might get confused if parentheses are placed in a string, e.g. "printf,3,')alpha('"
    3. It only parses one line at a time, and so can get confused by continuation lines.

    Number 3 seems the most serious limitation, but in fact most users would not break up an array subscript into separate lines, so in my case IDLV4_TO_V5 seemed to work for ~99% of the ~400 procedures I tried it on.

    One quirk I found in V5.0 is that for a structure x, x.tag[3] is legal, but x.[3] is not -- although x.(3) is!

    Other caveats - I've only tested it on a Unix system (Solaris 2.5), and the code is pretty clunky right now.   I welcome suggestions for improvement.

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