Subject: Re: Include diagramming in your compiler, interpreter, debugger or editor!
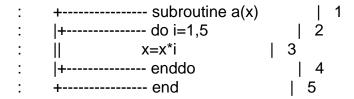Posted by sg928ah5 on Mon, 11 Dec 1995 08:00:00 GMT

Mitchell R Grunes (grunes@news.nrl.navy.mil) wrote:
: Include diagramming in your compiler, interpreter, debugger or editor!

: The diagramming programs just posted to alt.sources, and to the C,
: Fortran, IDL and PV-WAVE news groups create diagrams along the lines
: of

```
:     +--------------- subroutine a(x)        |  1
:     |+-------------- do i=1,5               |  2
:     ||            x=x*i                 |  3
:     |+-------------- enddo                 |  4
:     +--------------- end                   |  5
```

: which make it easier to understand source code listings by drawing
: lines next to blocks of code to indicate the start and end of programs
: and statement blocks, and by printing a "*" next to jump statements.
: (If you have a PC, they can also draw line graphics).

: Such things are especially useful when examining other people's code,
: or with the very very elaborate code developed by many people over a
: period of decades.

: Actually it would be far more useful if diagramming were incorporated
: into other tools:

: 1. Compilers could add diagramming lines to their source code listings.
:   Since compilers have a full fledged language parser, they are less
:   easily fooled by things like variable names that match keywords,
:   pathological spacing, etc. And it would help people figure out
:   incorrect nesting.

: 2. Likewise for interpreters.

: 3. Interactive debuggers might also diagram the code they are displaying,
:   to help the user execute the code trhough a current block.

: 4. Editors designed to edit a particular language could help the
:   programmer by drawing such lines too.

: I hope people who design such tools will consider including diagramming.

: It would make them easier to use and more "user-friendly".

: Thanks for your consideration.

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: Mitchell R Grunes, grunes@nrlvax.nrl.navy.mil. Opinions are mine alone.

Nice ideas! Did you think about send the above message to Absoft, Lehigh
and Microsoft?