

Browser modifies the SHOW PATHS command of MasterScope so that the output of the command is displayed as an undirected graph.

Browser makes it easier to use the MasterScope SHOW PATHS command by making it easier to read its results. This is how SHOW PATHS looks before Browser is loaded:

```

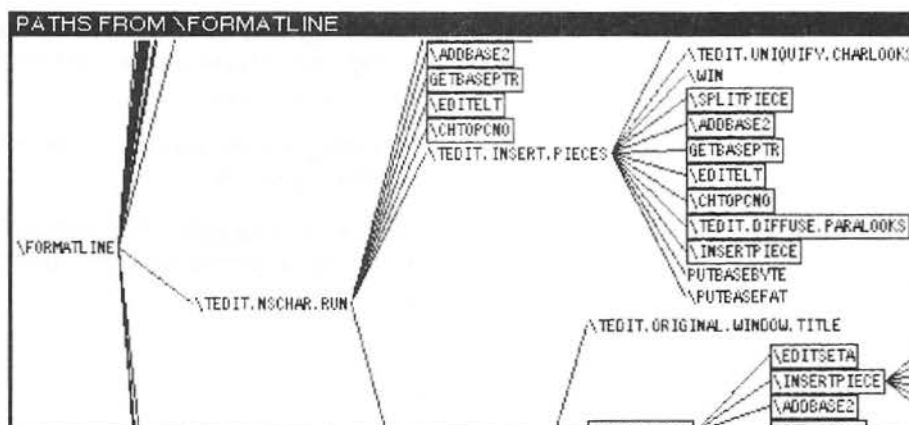
Exec (XCL)
20+
80+ FIX
80+ %%. SHOW PATHS FROM \FORMATLINE

1. \FORMATLINE apply
2.   \SETUPGETCH \TEDIT.TEXTBIN.STRINGSETUP ADDBASE
3.   UNFOLD
4.   \TEDIT.TEXTBIN.FILESETUP UNFOLD
5.   \TEDIT.REOPEN.STREAM {a}
6.   FOLDLO
7.   MOD
8.   \SETUPGETCH {2}
9.   \CHTOPCNO \EDITELT
10.  GETBASEPTR
11.  \ADDBASE2
12.  \EDITELT
13.  GETBASEPTR
14.  \ADDBASE2
15.  \TEDIT.APPLY.PARASTYLES apply
16.  \TEDIT.CHECK
17.  \TEDIT.APPLY.STYLES apply
18.  \TEDIT.CHECK
19.  \EDITSETA
20.  SELCHARQ
21.
81+

```

This shows that FORMATLINE calls SETUPGETCH, which calls EDITELT, etc.

And this is how SHOW PATHS looks after Browser is loaded:



This shows that FORMATLINE calls TEDIT.NSCHAR.RUN, which calls EDITELT, etc. (on another part of the calling tree).

This window can be shaped and scrolled to see more of the result.

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## Requirements

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MASTERSCOPE, GRAPHER

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## Installation

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Load BROWSER.LCOM and the other required modules from the library.

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## User Interface

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Browser creates a new window for each SHOW PATHS command, but will reuse a window if that window has an earlier instance of the same SHOW PATHS command displayed in it.

The windows can be reshaped and scrolled with the normal window menu commands (which pop up when the right button is pressed in the window title bar).

The windows are active in the sense that nodes in the graph (i.e., functions) can be selected for printing or editing by using the mouse. Clicking with the left button over the name of a function causes that function to be pretty-printed in the Browser printout window.

Selecting the same function again will describe the function, using the MasterScope DESCRIBE command, in the Browser describe window.

Selecting a function with the middle button will call the editor on that function.

The Browser graph is not updated automatically when you edit a function; you must give the SHOW PATHS command again to see the changes.

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## Functions

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(BROWSER T) turns the Browser on.

The Browser calls LAYOUTFOREST (in Grapher) to generate a graph showing the calling hierarchy.

The format is controlled by the two variables BROWSERFORMAT and BROWSERBOXING (which are set initially to display horizontally and to box functions that occur more than once in the graph).

SHOWGRAPH displays the graph.

The Browser modification to MasterScope can be undone by calling (BROWSER NIL), restoring the teletype-oriented output of SHOW PATHS.

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## Limitations

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Browser works only with MasterScope.

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## Examples

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Type the following into an Interlisp Exec window:

```
.ANALYZE ANY ON MY-MODULE
```

```
.SHOW PATHS FROM MY-FUNCTION
```