Inter-Office Memorandum

To	Bob Ayers, Ed Satterthwaite, Smokey Wallace, John Wick, Richard Johnsson, Phil Karlton	Date	October 23, 1978
From	Barbara Koalkin	Location	Palo Alto
Subject	Proposal for Debugger Interface	Organization	SDD/SD

XEROX

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Present at today's meeting: Ayers, Johnsson, Karlton, Koalkin, Satterthwaite, Wallace, and Wick.

The following is a summary of suggestions discussed at today's meeting:

* Smokey came in with a summary of what facilities the Tools environment can provide and 4 proposals for how much of it the debugger could adopt:
    (1)   Keep WindEx as present
    (2)   Adopt the Tools window scheme (and re-write whatever of the debugger and WindEx is necessary to replace Windows, Rectangles, etc.)
    (3)   Adopt all but the keyboard handling scheme of the Tools Environment
    (4)   Adopt the Tools Environment and write the debugger interface as a series of PNRs that invoke debugger actions.

* After discussing these 4 proposals, we decided that (1) and (3) were unreasonable, and that (2) could be a backup position if it looked like (4) wouldn't work (too hard to implement, take too long, or the resulting code would be too big).

* We must look into the cross dependency issues raised by adopting proposal 4 (see action item 1).

* Smokey also pointed out that the Tools Environment currently does not support a selection scheme; however he felt it would not be terribly hard to implement one (of the n favorite selection schemes currently popular) on top of the Tools Environment.

* It was emphasized that we plan to have "zero-based" stack commands, that is, nothing gets done until you invoke the command (to update the source, to display the current variables, etc.). We need to separate the "display the current source line" from the "load this sourcefile" command, both of which are currently implemented by the Display Stack s subcommand.

* We then began to discuss what it would mean to have n stack windows in the debugger. At the next meeting we will discuss how to create a stack window from the current selection (current context), and in what form to keep around the current context information.

* It was pointed out that by adopting proposal (4), we could release the debugger with a typescript, one stack window and one source window (or even only the typescript window) and let people try out their own schemes for stack windows and other such userprocs.

Action items:

* Smokey will build a WindEx equivalent in the Tools environment (including a file based

selection scheme) to help us to determine what (if anything) is missing and examine size and packaging questions. He will also bring some datapoints on proposed changes to the Tools environment, including priority and schedule of the items.

* BK will get size statistics on the current debugger and WindEx to use in the Tools comparison and study the implications of adopting Smokey's proposal (2) with respect to how much overhead is needed to adopt the Tools "window package" instead of the present one.

* The next meeting will be held on Thursday, 27 October at 10 a.m. in the front conference room.