

Inter-Office Memorandum

To Mesa Language Working Group Date November 23, 1977

From Wick Location Palo Alto

Subject Pointers Organization SDD/SD

XEROX

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DRAFT

Attached is the current proposal for long pointers (Satterthwaite, *Mesa Language Issues*, January 28, 1977). The Language Working Group minutes and my notes show that we made the following additional points:

Given the declarations

b: PAGEBASE; -- or WORDBASE
p: BASED POINTER TO T; -- or POINTER [n..m] TO T

then $b[p].f$ is the notation proposed for $(b+p).f$ (the add is done in software if b is of type WORDBASE). In other words, $b[p]$ is of type LONG POINTER TO T (POINTER TO T if b is a WORDBASE).

There are a number of unresolved issues we need to address before implementation can begin:

Conversion among 16, 24, and 32 bit pointers. Normalization of long pointers before comparison. Special cases for NIL.

How will these constructs make use of the magic frame locations? Does the instruction set do what we want?

What about compatability and long and tied pointers on the Alto?

We should take up these points at the next meeting.

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