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

\[
\begin{align*}
b & : \text{PAGEBASE}; \quad \text{-- or WORDBASE} \\
p & : \text{BASED POINTER TO } T; \quad \text{-- or POINTER } [n..m) \text{ TO } T
\end{align*}
\]

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 compatibility and long and tied pointers on the Alto?

We should take up these points at the next meeting.